

**The Interplay of Mobile Technology, Structure of Social
Relationships, and Adolescents' Agency:
A Study of Adolescents' Social Use of Mobile Telephone
in Hong Kong**

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A Thesis Submitted in Partial Fulfilment
of the Requirements for the Degree of
Master of Philosophy
in
Sociology

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July 2003

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Abstract

This study examines adolescents' use of mobile telephone in their everyday life context. Adolescents' mobile telephone use has been contextualized under family relations and peer group social networks. Our empirical findings illustrated that adolescents actively use mobile telephone to control parent-adolescent relationships and to gain freedom and autonomy through continuous family negotiations regarding the use of mobile telephone and social activities. Furthermore, adolescents show their competence in using mobile telephone through the collective use and social display of mobile telephone in the peer group social networks. It is through this interactive process that adolescents construct their identities. It is suggested that previous studies of information and communication technologies oversimplify the complex process of the use of technology. This study attempts to transcend the deterministic and unidirectional analysis of adolescents' social use of technology, and to illustrate the complex interplay of mobile technology, structure of social relationships, and adolescents' voluntaristic nature. Adolescents' mobile telephone use is understood under the context the social relationships, without ignoring the technological nature of mobile telephone and voluntaristic nature of adolescents.

摘要

本文研究香港青少年於日常生活中流動電話的使用，並將它置於家庭關係及朋輩關係的脈絡中。研究發現青少年利用流動電話控制家庭關係；青少年透過兩代之間對流動電話使用的協商，爭取更多的自主空間。另外，青少年亦利用流動電話建立朋輩關係。青少年透過這些過程建立自我形象。本研究指出了過去文獻於研究資訊科技使用的局限。這些文獻分析科技、個人與社會的關係時，大都採用一種單向及簡化的分析。本文指出青少年流動電話的使用是科技(流動電話)、社會(流動電話使用時處身的各種社會關係)及個人(青少年的能動性)相互作用的結果。青少年流動電話的使用必須置於社會關係的脈絡中去了解，同時不能忽略流動電話的特質及青少年於使用流動電話時的能動和自主性。

Acknowledgement

I would like to acknowledge the help and support by a number of people, without whom this thesis would not have been possible. I express my gratitude to my thesis supervisor, Prof. Chan Ying-keung. Prof. Chan generously provided intellectual support and encouragement in the research progress. I am very grateful to Dr. Ng Pak-tao, my general supervisor, for his valuable guidance at the initial stage of this research. I also thank to Prof. Ting Kwok-fai, Prof. Ma Lai-chong and Prof. Leung Sai-wing for their critical comments on my thesis.

I would like to dedicate thanks to all my interviewees. This study cannot be completed without their sincere help. I express my gratitude to Eric Ching, Ar Dong, Lee Kam-yan, Wong Hiu-man, Wong Lai-fong, Lawrence, and Hoi Wai-hang for their help in contacting respondents. I also thank to Leung Ho-cheung, Ngan Ka-fai, Chung Lik-hang and Chan Hok-leung for their help in preparing the focus group interviews.

I am grateful to my fellow friends in the graduate school, including Tsang Chung-yan, Ng Pui-man, Lee Kam-yan, Fang Fang, Fung Yat-chung, Chen Hon-fai and Tam Wing-sai. They offered emotional support and made insightful suggestions for my thesis. I express my thanks to my dearest friends, Wong Hiu-man and Ng Wai-kok, for their care and support in my desperate moments. I felt relax with them when I was under great pressure in the writing process. I also thank Yip Kam-kwo for his kindness and care. I owe my special thanks to Roy Lo, who was always available to share my ups and downs during my difficult months of revising. I was lucky to have the support of these wonderful friends.

Last but not least, I like to express my deepest gratitude to my beloved mother and brothers who have tolerated my absence when I worked hard for my thesis.

CHAPTER 1 — Introduction

Mobile telephone is one of the most commonly used information and communication technologies (ICTs) in Hong Kong. Office of the Telecommunications Authority Hong Kong recently revealed that the number of mobile telephone subscribers in Hong Kong has reached 6.36 million in April 2003¹. Hong Kong now can boast of being one of the world's highest mobile telephone penetrations (see Table 1 and 2).

For many years, pagers had been the most commonly used communication technologies (Garrard 1998). Mobile telephone service in Hong Kong had been adopted exclusively by businessmen at the beginning of its introduction². It was until mid 1990s that mobile telephone has become a popular communication device. The installation of GSM³ networks, CDMA⁴ service and PCS⁵ network, as well as the massive price war among operators, greatly decreased the monthly charge of mobile telephone service (Garrard 1998). From 1995 to 1997, the growth rate of subscribers reached over 50 percent annually (see Table 3). Mobile telephone has become a communication device commonly used among various social categories including housewives, students, and elderly people.

Despite the worldwide success of mobile telephone, it is surprising that there is a lack of empirical studies concerning mobile telephone and its related social

¹ Office of the Telecommunications Authority Hong Kong (OFTA), 10-6-2003.

² The first cellular network was installed in Hong Kong in 1984, when Communication Services Limited (CSL) launched a NAMTS system (NEC Advance Mobile Telephone System) (OFTA).

³ GSM (Global Standard for Mobile Communication) service was firstly launched in Hong Kong by SmartCom Limited (later became SmarTone Mobile Communications Limited) in January 1993 (OFTA).

⁴ CDMA (Code Division Multiple Access) service was launched in Hong Kong by Hutchison in September 1995 (OFTA).

⁵ Six licenses were issued in September 1996 for provision of Personal Communication Services (PCS) in Hong Kong (OFTA).

implications. Compared with other information and communication technologies such as television, home computer and the Internet, mobile telephone has caught insufficient attention in academic research despite its popularity.

In this introductory section, I attempt to highlight the significance of studying mobile telephone in its technological, empirical, social and theoretical senses, which demonstrates the importance of studying mobile telephony.

1.1 The Technological Significance of Mobile Telephone: The Ambiguity of Mobile Technology

First, the very nature of mobile telephone has caught specific attention in academic researches. Indeed, most of the mobile telephone studies are more or less inspired by the technological significance of mobile technology.

Mobile telephone is characterized by its multi-functionality. A small telephone symbolizes personal communication, including functions of sending and receiving phone calls, SMS (Short Messaging Service) messages, diverting phone calls, voice mail services, and caller identification (Caller ID). Mobile telephone also serves as a personal information center. For instance, many services operators in Hong Kong provide a huge variety of information services such as stock update, horse racing information, news, mark six information, or football SMS. Other value-added functions include phone book, calendar, alarm clock, games, calculator, WAP (Wireless Application Protocol) services, or even taking photos.

Many scholars advocate that the significance of mobile technology is its “*mobility*” nature. Both the device itself and the users are able to move beyond the constraints of space and time. It is believed that the physical and temporal boundaries are vanishing in the mobile age since mobile technology facilitates social

interactions to go beyond physical and temporal boundaries. Social activities, which are previously conducted in a fixed location, can now be conducted at any place. Thus, mobile telephone has the potential to empower people in engaging social activities and interactions (Geser 2002, Cooper 2002).

Ironically, mobile telephone also increases the possibility that users are *constantly connected* with others (Cooper 2002). Owning mobile telephone implies that the users are under the constant control and surveillance of others, since people are connected with the use of the mobile telephone device (Cooper 2002). The dilemma of mobile technology is that mobile telephone provides new freedom to the users, but they are constantly connected at the same time. It enables us to manage our social interactions and activities in a more flexible manner, but it also creates greater degree of surveillance and control (Wale and Gillard 1994).

The ambiguity of the very nature of mobile technology stimulates the present study. Although I am going to argue that the technological nature of mobile telephone must be considered in caution since it is easy to generate a deterministic point of view, yet the technological aspect of mobile telephone is still worth considering as long as it is located within the broader social context of use.

1.2 The Empirical Significance of Mobile Telephone: Adolescents'

Actual Process of Mobile Telephone Use

This study is also prompted by the recent trend of mobile telephone use in Hong Kong. However, most of the studies conducted by the mobile industry were market researches⁶. The substantial empirical studies interested in analyzing the social use of mobile telephone in Hong Kong are still inadequate. The only known attempt in

⁶ Most of the market researches of mobile telephone were interested in forecasting the trends of the mobile industry. The research reports conducted by International Telecommunication Union (ITU) are the most obvious examples.

studying the mobile telephony in Hong Kong was conducted by Leung and Wei (1999, 2000). The studies identified the characteristics of mobile telephone have-nots in Hong Kong and concluded that there has been a process of social exclusion in owning new telecommunication technologies (Leung and Wei 1999). Their analysis evaluated the social consequences of mobile telephone within the context of information gap. In another study, they adopted uses and gratifications perspectives to analyze people's uses of mobile telephone. The aim was to predict the mobile telephone adoption by identifying users' demographic characteristics (Leung and Wei 2000). Their studies can be served as the starting point in understanding the mobile telephone use in Hong Kong. Yet, further research should be conducted to analyze the social use of mobile technology since recent studies tend to ignore the actual process of mobile telephone use and the social significance of mobile telephone in users' everyday lives.

In this study, specific attention will be paid to a distinctive group of mobile telephone users – *adolescents*. According to a survey conducted by the Hong Kong Education Policy Concern Organization in 2002, 80 per cent of the junior secondary school students and 28 per cent of the senior primary school students have mobile telephones (Cheung 2002). While there is a significant increase in the number of young mobile telephone users, their role is largely ignored in the studies of media and information technologies. Until recently, very little is known of adolescents' uses of mobile telephone in the context of everyday lives.

1.3 The Social Significance of Mobile Telephone: The Importance of the Context of Mobile Telephone Use

There is a growing research interest in analyzing the social significance of

media and information technology. The technological advancement of ICTs has stimulated research works in examining the relation between individuals and technologies. While there are tones of studies examining the social implications of the use of various kinds of media and information technology, mobile telephone remains relatively invisible in the academic field despite its popularity and significance in our social lives⁷. Thus, this research attempts to fill this gap by exploring the social significance of mobile telephone use by locating the actual uses of mobile telephone within a broader context of everyday lives.

Previous studies of information and communication technologies suggest that family is an important social context in understanding the process of the use of technologies (see Morley 1986, Lull 1990, Silverstone 1994). Family is a major unit of technological consumption. It is also an important site for the experience of information and communication technologies. It is suggested that the use and experience of technological consumption are constrained by the family structure, especially the family power dynamics (Morley 1986).

In addition, it is suggested that adolescents' use of technologies is embedded within their peer group cultures (Weilenmour and Larsson 2002). Indeed, peer communication is one of the most important functions of adolescents' mobile telephone use. Thus, the present study of adolescents' use of mobile telephone is located within their everyday life context, including both the family and friendship network.

⁷ Television is one of the most popular subjects of media study, see Morley (1986), Lull (1990), Silverstone (1994). Others include telephone (Moyal 1995, Gillard et al 1998, Frohlich et al 1997), email (Boneva et al 2001), Internet (Lee 1999, Bakardjieva and Smith 2001), home computer (Haddon 1992, Ribak 2001), ICQ (Leung 2001), and personal stereos (Bull 2000, 2001). Mobile telephone research is still a relatively new study area.

Apart from contextualizing adolescents' use of mobile telephone under family relations and peer group social network, the historical changes of family and peer relationships in Hong Kong should not be overlooked. Special attention should be paid to the possible socio-demographic factors in affecting family lives, since it is believed that the historical and social changes of Hong Kong in the past 30 years have significant influences on family and social lives.

1.4 The Theoretical Significance of Mobile Telephone: The Interplay of Technology, Structure and Agency

Scholars of various disciplines (including media studies, sociology, psychology, and cultural studies) examine the social significance of technology from different empirical orientations. Although there are many empirical studies investigating the significance of ICTs with different empirical interests, most of them are not grounded within a theoretical discourse. It is necessary to locate the studies of ICTs within a theoretical perspective. Previous research works of ICTs have a tendency towards a deterministic and unidirectional analysis, in which the significance of technology, structure and agency are treated as separate and mutually excluded factors in the process of the use of technology. The interrelationship of technology (mobile telephone), social structure (the embedded social context of use), and individuals' agency (adolescents' voluntaristic nature) is theoretically ignored by scholars.

The endless debates concerning the impact of media and information technology are the result of the deterministic analyses. They either emphasize the power of technology in generating social changes, or argue on the relatively importance of social structure and users' agency in determining the use of technology. I suggest that further research of mobile technology should go beyond the

deterministic assumption. In general, the study of the social significance of mobile telephone should be grounded on a theoretical analysis by emphasizing the complex interplay of technology, social structure and users' agency, so as to transcend the over-simplistic causal analysis of the relation between technology, society and individual.

1.5 Overview of the Thesis

This study is inspired by various empirical and theoretical attempts concerning adolescents' relation with mobile telephone within the context of everyday life. In the chapter of literature review, relevant studies concerning both theoretical and empirical works on information and communication technologies are presented. The current debates on the impacts of ICTs in social theories will be discussed in detail. Following the literature review, the theoretical framework deployed in this study will be illustrated in chapter three. The framework aims at locating adolescents' mobile telephone uses within a broader theoretical discussion of the interplay of technology, structure of social relations, and actors' agency. In chapter four, the methodology of the present study is presented. Chapter five to seven are the empirical chapters showing the interplay of adolescents' mobile telephone use and their everyday lives. Specifically, chapter five illustrates adolescents' purchase of mobile telephone within the family context. Chapter six analyzes the process of integrating mobile telephone into adolescents' family lives. The family negotiation process concerning the use of mobile telephone is analyzed. It illustrates that adolescents actively use mobile telephone to negotiate their family relations and the identity of self. In addition, the relationship between mobile telephone and peer group culture will be discussed in chapter seven. In the concluding chapter, the

present study will be located within the broader academic discussion of the interrelation of technology, individual and society.

CHAPTER 2 — Literature Review

This chapter present relevant research works on mobile telephone. Mobile telephone is still a relatively new subject of academic research. Most of the mobile telephone studies have been conducted with reference to previous ICTs researches. Thus, it is necessary to refer back to the literature on media and communication technology in order to have a more comprehensive understanding on the research field. Specifically, television and telephone studies are worth considering.

Television has received intense interest of communication theorists. Indeed, much of the present studies of information and communication technologies have been largely inspired by television researches. The long research history of television helps us to grasp the theoretical, empirical and methodological trends in the field of ICTs researches. Furthermore, specific attention would be paid to telephone studies, since there are many functional similarities between traditional telephone and mobile telephone. Thus, previous research works on telephone can be served as important references in grasping the significance of mobile telephone.

Apart from reviewing the literature of different kinds of information and communication technologies, other related research works would also be included. Various relevant research fields such as media studies, cultural studies, sociology of childhood and adolescence, and family studies would be reviewed as long as they are relevant to the present study. In addition, the literature concerning the impact of socio-demographic changes in Hong Kong on family lives will also be discussed in detail. It provides a historical and social background in understanding the relations of technology and family life, especially the role of social change and communication technology in affecting parenting practice and intergenerational

relationships.

I would first present the previous researches on mobile technology. Then, the literature of ICTs studies would be summarized and discussed in detail. The ICTs literature would be organized according to their different theoretical orientations, including technological determinism, and the theoretical debate of structure and agency. It is found that previous studies of ICTs were characterized by the deterministic tendency in analyzing the social implications of technology on individuals' social lives.

2.1 Research on Mobile Telephone: An Overview

Although mobile telephone was introduced at the late 70s, it was until the 1990s that mobile telephone became the subject of academic research. Many scholars began to emphasize the importance and significance of studying mobile telephone (Roos 1993, Haddon 1998b, 1998c, 2000, Fortunati 2000, Geser 2002). There are different research interests within the field of mobile telephone studies, which can be classified by different theoretical orientations and levels of analysis.

In general, most of the recent studies of mobile telephony have been conducted on the micro level. For instance, many scholars have been interested in examining the possible roles of mobile telephone in changing the pattern of micro social interaction (Ling and Yetti 2002, De Gournay 2002, Schegloff 2002, Weilenmann and Larsson 2002, Sherry and Salvador 2002). Some studies further narrowed down their research focus to specific situations of mobile telephone use, such as mobile telephone use in working place (De Gournay et al. 1998, Laurier 2002, Gant and Kiesler 2002, O'Hara et al. 2002) and public place (Ling 1998, University of Sussex Media, Technology and Everyday Life Research Group 1998, Sussex

Technology Group 2001, Persson 2001). Moreover, other scholars were interested in studying the relationships between mobile telephone and family communication (Wale and Gillard 1994, Sawhney and Gomex 2000, Ling and Helmersen 2000, Bachen 2001, Geser 2002) such as the role of mobile telephone in parenting practices (Rakow and Navarro 1993, Vestby 1996, Oksman and Rautiainen 2002). These studies provide useful empirical references in understanding the use of mobile telephone in the context of different social situations and relationships. They were interested in examining different groups of mobile telephone users, including adolescents (Rautiainen and Kasesniemi 2000, Ling and Helmersen 2000, Oksman and Rautiainen 2002, Skog 2002, Kasesniemi and Rautiainen 2002) and adults (Roos 1993, Palen et al 2001, De Gournay et al 1998). Various patterns of mobile telephone use have been identified. For instance, Ling and Yetti (2002) noted that adults use mobile telephone for instrumental reason, whereas adolescents tend to have more expressive use of mobile telephone (p.139-40).

On the other hand, some mobile telephone studies adopted a macro approach to examine the social significance of mobile telephone, although this kind of study was rather rare. Some researchers were interested in investigating the issues of information gap (Leung and Wei 1999), the relations between post modernity and mobile technology (Roos 2001, Myerson 2001), mobile telephone and control and surveillance (Green 2002), the effects of mobile telephone in blurring the physical and social boundaries (Gant and Kieslar 2002), as well as the role of mobile telephone on our urban life experiences (Townsend 2002). In general, these macro studies of mobile telephone analyzed the social significance of mobile technology in a rather deterministic manner. Yet, these studies must be interpreted in caution since they emphasized the technological nature of mobile telephone in changing

individuals' social lives and experiences.

Previous studies of mobile telephone illustrate that there are different empirical and theoretical orientations within the research field of mobile telephone, which provide useful theoretical, empirical and methodological references regarding the study of mobile telephone. I attempt to discuss the current theoretical discussions regarding the relation between ICTs and individuals in general and the relation between mobile telephone and adolescents in particular. First, previous research works of ICTs have a tendency towards technological determinism, in which technology is identified as a main factor in determining social changes. Second, the theoretical debate of the relative importance of social structure and individuals' agency in determining the use of technology has often been polarized, in which they either emphasized the importance of structure of social relationships in shaping the use of technology, or emphasized the voluntaristic nature of individual users in the process of defining and using technological artifacts. It is important to confront the theoretical limitations regarding the studies of ICTs, so that we can achieve a more comprehensive understanding of adolescents' uses of technology in their everyday lives.

2.2 Technological and Social Changes: Technological Determinism

It is found that previous studies of ICTs and mobile telephone have a tendency towards technological determinism. "Technological determinism" is an approach that identifies technology as the principal determinant factor in generating social changes (Croteau and Hoynes 2000: 301). It assumes that technology has the implicit power of changing the society.

The notion of technologically deterministic orientation can be identified in the

“medium theory”⁸ in 1960s. Medium theory refers to the theoretical approach which suggests that the social impact of technology is mainly a matter of its technological properties (Corner 1997: 253). Marshall McLuhan (2001), who was the most influential theorist of medium theory, suggested that the very nature of new media and information technology (especially the technological advancement from print media to electronic media) was the key element in determining social changes. His famous assertion “the medium is the message” (McLuhan 2001: 7) clearly illustrated the theoretical orientation of the medium theory. It is the capabilities of technology which transform our social experiences.

Following the research tradition of medium theory, many television studies adopted a similar theoretical approach in perceiving the very nature of technology in generating social changes. Following Ariès’ notion of the “discovery of childhood”⁹, Postman (1994), one of the most famous scholars in analyzing the social effects of electronic media on childhood, argued that the technological development from print media to electronic media (especially television) changes the nature of childhood. He suggested that print media creates the notion of individuality, which leads to the discovery of childhood. Television, by contrast, discloses the dark and fugitive mysteries of adult life. Adults are unable to preserve their secret. Postman argued that television has generated potential dangers to family life and social life. He interpreted the impacts of technology from a pessimistic point of view. Buckingham (2000) attributed it as a kind of “moral conservatism” (p.27), which offered a pathological interpretation towards technology by advocating that technological advancement generates negative social consequences. For instance, he suggested that greater social control is necessary

⁸ Medium theory is to describe the theoretical approach that technology is the main factor for generating social changes. See Meyrowitz (1985) and Corner (1997).

⁹ See Ariès (1973), *Centuries of Childhood*.

(such as close monitoring by parents and by the state) in order to deduce the harmful effects of technology. Buckingham proposed that such arguments about the possible impacts of media and information technology are based on the belief that children and adolescents are vulnerable to danger (p.5). Children and adolescents were perceived as passive agents passively influenced by the negative effects of media and information technologies, which neglected adolescents' possibilities as active media users (p.5). Buckingham (1993) concluded Postman's notion that technologies are perceived as the primary cause of social changes. He adopted a deterministic point of view in which he attributed the technological advancement as a fundamental cause of social changes.

In contrast, Meyrowitz (1985) analyzed the possible social impact of technological advancement in examining the relations between technology and children and adolescents, Meyrowitz (1985) offered a relatively comprehensive analysis in examining the role of electronic media on children's life experience. He suggested that the changes from print situation to electronic situation (especially television) have blurred the boundary of physical setting and social situation. Specifically, television changed the social roles of children and adults, in which Meyrowitz noted as the "blurring of childhood and adulthood" (p.226). Adults' backstage behavior, which was once kept in private life, has been pushed into public through the use of electronic media (Meyrowitz 1985: 2-3). It is more difficult for adults to have secrets. It undermines adult's bases of power and authority. He argued that individuals become more difficult to segregate different social roles and relations because of the unclear boundaries of different social situations. He concluded that electronic media leads to a nearly total dissociation of physical place and social place (Meyrowitz 1985: 115). Individuals' physical location no longer

determines the appropriate social roles. The changes in social roles of children and adults are related to the changes in media and communication.

However, Meyrowitz still employed a causal connection on the impact of electronic media (Lindlof 1996: 589). Moreover, the notion of “blurring boundary” has no empirical support in his studies (p.589). Meyrowitz (1985) purposed that childhood and adulthood are merged by the development of media technology. Unlike Postman, Meyrowitz did not judge the changes from a moralist point of view.

In sum, Postman and Meyrowitz analyzed the technological impact on the macro level. They neglected the micro social context in which technologies are produced, defined and used. Their analyses were solely rested on an interpretation that there is an opposition between different kinds of media and information technologies. New media and information technology is predominately perceived as an autonomous force of generating social changes (Buckingham 2000). Thus, it was still a deterministic point of view¹⁰. For instance, both of them attributed the changes of the nature of childhood to the development from print media to electronic media.

Recent studies on mobile telephone followed similar theoretical assumptions in analyzing the effects of mobile telephone on users’ social lives and experiences. They focused on the possible social consequences of mobile telephone. Mobile telephone is commonly regarded as a new communication technology which further enables the merging of the public and private boundaries and reordering our social activities.

For instance, it is proposed that traditional telephone requires users to stay at specific places in order to be contacted. But mobile technology, which is

¹⁰ Buckingham (2000) interpreted Meyrowitz’s argument as a kind of “information-system determinism” (p.29), which suggested that electronic media leads to a separation of adult and child information system.

characterized by its portability, empowers people to engage in social interactions in a more flexible manner. It is suggested that mobile telephone alters the nature of interpersonal communication and creates a new freedom of movement, in which users are freed from fixed locations since people can communicate with others while moving. Thus, mobile telephone restructures the interpersonal communications by shifting the connection from specific locations to specific individuals (Geser 2002). It is proposed that physical constraints can be eliminated, in which mobile telephone users can create their own communication network and manage their social interactions and activities. Such kinds of analyses regarding the possible social consequences of mobile telephone are in parallel to Meyrowitz's notion of "blurring the boundary".

Some scholars further concluded that mobile telephone use reflects a "postmodern paradox" (Myerson 2002, Roos 2001). On the one hand, mobile telephone creates a new freedom of movement and sense of privacy, since mobile telephone is a private, portable and individualized communication device. On the other hand, it leads to the situation that people is placed under constant availability. Mobile telephone strengthens social relations, but it also brings greater degree of surveillance and control (Wale and Gillard 1994). It positions between the paradox of mobile and fixed, between individuality and communication, freedom and control, proximity and distance (Roos 2001).

In sum, from the technological deterministic point of view, there is a risk that the role of technology is being overestimated. Technology is perceived as the main element of the technological process, which oversimplifies the complexity of the process of the social use of technology (Croteau and Hoynes 2000: 301). Medium theorists tend to overlook the ways in which technology is actually used within the

context of various social relationships. Most of the micro analyses regarding the technological effects were often not empirically informed. The social consequences of technology were attributed by the very nature of technology, which often neglected the context of the use of technology.

It is suggested that the impact of media and information technology should be contextualized within everyday life context of use. The meaning of technology is not solely defined by its technological sense, but it is socially constructed within various situation of use (Harper 2002: 218). Buckingham (2000) argued that technological determinism is a uni-dimensional analysis (p.25). While it is not necessarily wrong by claiming that technological advancement plays a part in generating social consequences, it cannot be reduced to a single explanation.

2.3 Contextualize the Use of Technology: Structure and Context

In transcending the notion of technological determinism, Strathern (1992) suggested that the use of technologies is “as much pressed into the enactment of already existing social relationships” (p. viii). It is claimed that the impact of technology is limited by the ways in which people actually use it (Croteau and Hoynes 2000: 319). Even though technology provides certain kinds of functional capacities, it should not be seen in isolation from the social, cultural and wider technological context (Haddon 1998c).

The notion of “contextualizing technology” becomes increasingly important. Many scholars tried to analyze the use of media and information technology in certain interactive context.

It is suggested that the entry of media and information technology in the household environment has already gone through a family negotiation process since

adolescents are still under the control of parents regarding the purchase of domestic technology, and the process continues in the later use of the device (Haddon 1992). Parents need to anticipate the potential impacts of purchasing the technological artifact on family life and relations (Haddon 1992).

2.3.1 Family as an Important Context of the Use of Technology

Previous studies of domestic use of television (e.g. Morley 1986, Lull 1990, Silverstone 1994) provide theoretical and methodological starting points for understanding the use of mobile telephone. Previous studies of television have already suggested that family context is crucial in affecting the use of new media and information technologies, since the device is most probably used with other family members. Lull (1984) and Morley (1986) suggested that domestic context is significant in the study of television use, especially the importance of domestic power structure in affecting the use of media and information technology in family. Morley (1988) used the ethnographic method to explore the diversified uses of television within the domestic context of viewing. Morley (1988) suggested that the use of television at home follows the domestic power distribution, especially the dominance of male power. Yet, adolescents' uses and experiences of media use were still largely neglected in his study (Buckingham 1993: 11).

Recent studies of mobile telephone have also adopted a similar approach by locating the use of mobile telephone within the family context, and linking adolescents' mobile telephone use with other family factors such as examining the perceptions of mobile telephone among family members. For instance, Sawhney and Gomez (2000) in their preliminary ethnographic study of domestic use of mobile telephone revealed that parents perceived mobile telephone as beneficial for the

family. Mobile telephone facilitates family coordination while other family members are on the move. Furthermore, mobile telephone minimizes parents' worry about safety (Sawhney and Gomex 2000).

In another studies of family use of mobile telephone, Rakow and Navarro (1993) suggested that the introduction of mobile telephone into the household would not change father's family role in terms of sexual division of labor. Instead, mobile telephone reinforces the existing clearly defined family responsibility and gender inequality in the family. For instance, mothers are responsible for supervising their children by using mobile telephone (Rakow and Navarro 1993, Wale and Gillard 1994). It is suggested that mobile telephone requires a mother to have "parallel shifts", in which the responsibilities of work and home can be managed at the same time. Oksman and Rautiainen (2002) also have similar conclusion that mobile telephone is an answer to the new demands of family and work culture, in which women purchase mobile telephone for the purpose of parenting and working.

However, most of the mobile telephone studies have exclusively focused on parents' perceptions of mobile telephone, whereas children and adolescents' experiences of using mobile technology are largely ignored. Ribak (2001) noted that previous studies of ICTs tended to analyze the use of technology from a gender perspective. The intergenerational aspect is still empirically absent from the research on the relations between individual and technology (p.224-5).

There are inadequate research works exploring adolescents' uses of mobile telephone and other information and communication technologies in the context of family interaction. The possible reason of neglectfulness is that mobile telephone use among teenagers is still a relatively new social phenomenon. Although there are studies examining media use in the family context (especially television use),

which provides a useful framework for understanding the use of mobile telephone, their research focus have been limited to the gender relationship between husbands and wives, in which a gender perspective is adopted to analyze the domestic use of the technology.

Furthermore, it is suggested that the reason for overlooking adolescents' use of media and information technology in family context is related to the research tradition in family studies. For instance, the previous literature of family power studies mainly focused on the gender asymmetrical power structure in the household. In the field of family sociology, scholars often focused on the gender relations between husbands and wives, bypassed the possibilities of children's and adolescents' agency. Kranichfeld (1987) argued that family power has been "masculinized" (p.42) in which the family has been regarded as a realm of power struggle between men and women. Much of the family power literature focused primarily on determining the relative power of husbands and wives in marital decision-making process, in which the family asymmetrical power structure is solely a factor of gender difference. Kranichfeld (1987) argued that the horizontal marital tie is only partial dimension of family power structure. The vertical power dimension (parent-child relationship), which is commonly ignored in the family power researches, is indeed more complex, enduring and significant (p. 42). He stated that the over-emphasis of conjugal power misses out the intergenerational dimension of family power which is of the greatest significance in the family. Thus, research on adolescents' use of ICTs in relation to parent-adolescent relationship should be further examined.

Unfortunately, previous literature on parent-child relationships revealed a traditional view on parents and children (Ambert 1992: 12). Specifically, Walters

and Walters (1980) in their review of the 1970s literature on parent-child relationships mentioned that previous studies of parent-child relationships have certain unidirectional orientation. Ambert (1992) further elaborated that such kind of unidirectional orientation exists in the sociological and psychological studies of parent-child relations. In the mainstream of sociological theory, the concept of socialization has been limited to the analysis of the effects of various socializing agents on children and adolescents, such as parents (or family) and other institutional effects such as school and mass media (p. 12-13). On the other hand, the developmental psychology literature have similar problem by exclusively focusing on the influences of parents on children and adolescents' cognitive and psychological development, which disregarded the importance of social context (p.12-13). Ambert (1992) concluded that the concepts of socialization and child development deprive the possibility of children and adolescents of being considered as active social actors (P.13). Children and adolescents, under this theoretical consideration, are merely passive recipients. Adolescents are perceived as homogeneous and passive beings in the powerless social situation. This kind of unidimensional concept neglects the interactional and reciprocal nature of parent-child communication (p. 13).

In sum, the above literature illustrates the limitations in the previous studies of information technologies and family researches. On the one hand, these studies often adopted the gender perspective to understand family structure, in which the role of adolescents was totally neglected. On the other hand, there was a risk that family structure is interpreted in a unidirectional manner, in which family structure was perceived as the only factor in determining familial use of media and information technology, bypassing the possibility of users' agency as well as the significance of

technology.

2.3.2 The Changing Social Context in Hong Kong: Socio-demographic Changes and Family Life

Apart from discussing the necessity of contextualizing the study of the use of technology within the everyday life context, the historical and social changes in Hong Kong should also be considered as a relevant context in studying adolescents' use of mobile telephone as well as family relationship. It is suggested that Hong Kong's rapid economic growth in the past 30 years has significant influence on family life. Scholars are interested in investigating the impact of social, economic, and demographic factors on contemporary Hong Kong families (Law et al. 1995) and child development (Chen and Wong 1999).

Previous literature suggested that the improvement in the status of women has significant influence on Hong Kong families. The rise of women's social status is closely related to the increase in female participation in the labour force and the improvement in women's educational attainment since the 1970s. According to the government statistics, female labour force participation rate increased from 45% in 1976 to 52% in 2002 (Census and Statistic Department: 2003). It is due to the rapid growth in light industries and service industries, which increased the opportunities of female to participate in the labour market. The increase is particularly significant among married women. The labour force participation rates for ever married women had increased from 39.1% in 1986 to 43.4% in 2001 (Census and Statistic Department: 2002).

On the other hand, there was a marked improvement in the women's educational attainment. Government statistics show that the proportion of the female

population with secondary or higher education increased from 32.3% in 1976 to 67.6% in 2001 (Census and Statistic Department: 2003).

It is suggested that the changes in women's social status have significant impact on contemporary family. First, women postpone the age of marriage. Government statistics show that the median age of women at first marriage was increased from the age of 22.9 in 1971 to the age of 27.6 in 2002 (Census and Statistic Department: 2003). It is believed that the phenomenon of delaying marriage lead to the postponement of first live birth. The median age of women at first live birth was also increased from the age of 23.4 in 1971 to the age of 29.4 in 2001 (Census and Statistic Department: 2003).

The postponement of marriage and first live birth leads to the decrease in the number of children as well as the household size. Statistics shows that the total fertility rate (number of live births per thousand women over the lifetime) was sharply decreased from 3459 in 1971 to 959 in 2002 (Census and Statistic Department: 2003). The crude birth rate (number of live births per thousand population) also declined markedly from 23.7 in 1967 to 7.1 in 2002 (Census and Statistic Department: 2003). Moreover, the average domestic household size decreased from 4.5 in 1971 to 3.2 in 2002 (Census and Statistic Department: 2003). The "one unextended nuclear family" has become the most dominant family type in Hong Kong (66.2% in 2001), which shows that more married couples prefer not living with parents and having less children.

Scholars suggested that the changes of socio-demographic factors in Hong Kong influence parenting practice as well as adolescent-parent relationships. Since the number of children per household decrease, children play a more significant role in family. Parents can afford to devote more resources to the children. Parental

attention becomes more concentrated. As there is an increase in household income and improvement in people's living standards, children become much more affluent in terms of material possessions (Chen and Wong 1999: 54). They advocated that there was a material inclination of Hong Kong's children and youths. Children and adolescents have been more materialistic as their parents tended to have the "compensation" mentality in which some working mothers may reinforce the materialistic tendency of their children to compensate for spending less time with them (Chen and Wong 1999: 33-34, 37). At the same time, parents have greater expectations of their offspring (Chen and Wong 1999: 36), especially children's academic achievement.

As there is an increase in the number of dual-income families, married women have to cope with the multiple demands arising from their conflicting roles as mothers, wives and employees (Chen and Wong 1999: 37). Mobile telephone may be served as a communication device to cope with their dual roles. Mobile technology becomes an alternative to exert remote control over their offspring. Another possible effect is that adolescents are more detached from their family and more attached to their peer group, since parents of dual-income families have relatively less time spend with their children (Chen and Wong 1999: 37).

2.4 Individuals' Voluntaristic Nature: Users' Agency

The term "agency" refers to individuals' capacity for voluntary action, emphasizing the undermined nature of human social action. Until recently, children and adolescents have been increasingly perceived as active social actors in conceptual and analytical senses. The notion of "agency of children" has emerged in the domain of sociology of childhood, consumption studies (Anderson and Miles

1999), and audience research (Buckingham 1993). At the same time, the new development of sociology of technology enhances the notion of “active users” in defining and constructing the meaning of technological artifacts. On the other hand, many scholars attempt to conceive children and adolescents as active social actors in family studies. For instance, Ambert (1992) suggested that children and adolescents have effects on reconstructing family lives and parents’ life styles (p. 14). Walters and Walters (1980) suggested that the concept of socialization must be reconsidered from the perspective of parent-child reciprocal relationships. All these theoretical development contributed to the rise of “children’s agency”.

Although the notion of children and adolescents as active social actors has evolved in the recent literature of various disciplines, empirical works concerning adolescents’ active use of technology are still underdeveloped (Ambert 1996: 21). For instance, sociology of childhood and adolescence, which recognized adolescents’ agency and competence in making meanings, largely ignored the significance of media and communication technologies in their social lives (Buckingham 2000:49). Furthermore, the long research tradition of media studies has mainly focused on adult’s use of media, in which the distinctiveness of the use of media among children and adolescents is still in question. Adolescents’ experiences of media and communication technologies have been neglected by the adult-centred analyses.

In the field of communication studies, the uses and gratification approach¹¹ is the most important approach in advocating the volunteristic nature of media users. It is suggested that individual users are able to make free choice upon the use of media technology. Users respond to media technology in a variety of ways depending on individual characteristics. Individuals are portrayed as active users

¹¹ See Blumler and Katz, 1974.

while purchasing, using and interpreting media.

Although the emphasis on the agency of media users was an important theoretical breakthrough within the field of communication studies in 1970s, the underlying theoretical assumptions of the approach have been critically challenged¹². Media use is perceived in asocial manner under the uses and gratifications tradition. Different patterns of mobile telephone use have been attributed to “individual differences” (Buckingham 2000: 108), which isolates the use of media and information technology from its social processes and interactions.

Apart from the uses and gratification approach, the studies of children and adolescents as active media users have also developed within the field of psychology. They adopt a psychological perspective to approach children’s use of media and information technology, in which the concern is on children’s cognitive and psychological development.

The development of uses and gratifications approach and psychological analyses shift towards the notion of active audience in using media and communication technologies. However, they presume that individuals are self-conscious in satisfying their needs (Buckingham 1993: 9). Users are interpreted as free-floated individuals by disregarding the embedded social context of action.

Recent studies of mobile telephone also have a tendency towards the overemphasis of users’ agency without locating users’ agency within the context of social action. It is suggested that parental control becomes less effective after children’s use of mobile telephone. It is believed that mobile technology allows

¹² Uses and gratifications approach was challenged by reception analysis (which focuses on the importance of texts) as well as media ethnography (which focuses on the actual context of media use).

children and adolescents to maintain a direct communication. Parents become more difficult to control children's access of the media and technology. It is suggested that parents have the opportunity to overview their children's social interaction if the communication is relied on a centralized channel, such as family telephone. However, children's use of mobile telephone makes such kind of monitoring by parents more difficult since mobile telephone is a highly personalized communication device. Children and adolescents are able to manage social interactions outside the direct overview of parents (Ling and Helmersen 2000). They are able to make and receive calls in a more private manner. They can even use caller identification and call transfer functions to control the input and output of information. Thus, the normative influence of family on adolescent's social lives declines since the centralized control becomes more difficult (Geser 2002). Adolescents can use mobile telephone as a device to gain more privacy at home and separate from their parents.

Buckingham (2000) suggested that this kind of assertion rests on the belief of the technological advancement (p.37). It is based on the assumption that mobile telephone has the functional capacity to go beyond temporal and spatial constraints. The intrinsic nature of mobile telephone, such as portability and individuality, offers greater flexibility and possibilities to children and adolescents, which further leads to a decreased control over children's social activities. He argued that it is a kind of technological determinism, in which the agency of children and adolescents is based on the functional capacity of technology. Although it is advocated that adolescents can be empowered through the use of mobile telephone, such kind of argument is still based on the assumption that mobile telephone have intrinsic capacities which allow children and adolescents to exert more control of their social actions. Even

though such kind of research studies advocated that new media and communication technologies are related to the increased autonomy and freedom of children and adolescents, the underlying assumption is that the agency of children and adolescents is initiated by the intrinsic nature of mobile telephone, in which technology is the major factor. The processes by which technologies are actually defined and used by the users have been neglected. Technologies are perceived as a means to empower and liberate children and adolescents (p.41). The agency of children is a consequence of technological development, which is ultimately a kind of technological determinism (Buckingham 2000:45).

Thus, the notion of “agency” generates certain risk in analyzing the relations of technology and individuals. It is suggested that the recent studies of sociology of childhood have the tendency towards a neglectfulness of the context of social action (James and Prout 1996: 41). Brannen and O’Brien (1996) argued that it is inappropriate to detach children and adolescents from their immediate settings when scholars advocated their voluntaristic nature (p.1). There is a danger that the notification of the voluntaristic nature of children and adolescents would have the risk of de-emphasizing the importance of the structural and contextual dimensions as providing constraints upon social action (Brannen and O’Brien 1996: 2). Still, the agency of users should not be overlooked, although the actual space of action is an empirical matter.

2.5 Concluding Remarks

In this chapter, I have illustrated that previous studies of adolescents’ in relation to media and information technology reflect a deterministic and polarized theoretical orientation. First, the studies of ICTs generate certain risk that the nature of

technology is perceived as the primary cause of social changes. Second, the notion of liberation and empowerment of children and adolescents generated by the new development of media and communication technologies reflects an optimistic view towards technological development. Although it is claimed that children and adolescents are active social actors in using technology, their agency is only possible due to the material nature of the technology. Thus, it is actually a kind of technological determinism. On the other hand, the notion of power structure and control emphasizes the importance of structure in affecting adolescents' mobile telephone use. It has the tendency towards a unidirectional conclusion, in which adolescents are conceived as the passive recipients of social factors. There is a danger that the view of children and adolescents as the product of structural factors would be replaced by the opposite but deterministic notion that adolescents are competent in nature.

It seems that there are inadequate research works which analyzed the micro social processes of the use of technology by integrating the technological, social and individual factors. The previous studies of ICTs obscure the interrelations of technology, society and individuals. The complex nature of adolescents' use of mobile telephone is not fully explored in the previous studies.

In order to transcend those deterministic and unidirectional analyses, it is necessary to stress the interrelationships of technology, social structure and individuals' agency in the process of the use of technology. As Cooper (2002) mentioned, there are many uncertainties about the nature of mobile telephone (P.20). The nature of mobile telephone should not be fixed or limited to its functional capacities, since it is the people who use the technology, not the material functions define the use. Lie and Sorensen (1996) proposed that it is better to retain the

ambiguity and ambivalence in understanding the technology (p. 12). Although the heterogeneous nature of the technology make the analysis more complex and difficult, it is still necessary to transcend the deterministic account of the relationship between the technology and the social changes. In fact, the ambiguity of the technology is the result of the complex process of appropriating and integrating the technological artifact into its interactive context of use. In this respect, I attempt to adopt a theoretical framework in locating the present study into a broader theoretical discussion of the interplay of technology, society and individual, so as to obtain a comprehensive understanding of adolescents' use of mobile technology.

CHAPTER 3 — Conceptual Framework

The chapter of literature review presents the major limitations of the previous ICTs studies. They either emphasize the importance of social structure in shaping users' experiences of media and information technology, or stress on users' active role in defining and constructing the meaning of technology. I argue that the study of information and communication technology should transcend these kinds of theoretical limitations. Indeed, the relation between social structure and users' agency is not mutually exclusive. The use of information and communication technology can only be grasped by examining the interplay of the technology, its embedded structure of social relationships, and the users' voluntaristic nature.

While there is a sharp increase in studying mobile telephone in the academic field, little research works have been conducted by locating the social use of mobile telephone within a wider context of social theory. I attempt to locate the present study within a broader analytical framework of technology, individual and society, in order to achieve a comprehensive understanding of adolescents' mobile telephone use by considering the complex interplay of mobile technology, the context of various social relationships, and the individual' agency.

3.1 Re-approach the Study of Mobile Technology, the Context of Use, and Adolescents' Agency

This study attempts to empirically explore the process of adolescents' use of mobile telephone within the context of everyday life. The underlying theoretical concern is to understand the interplay of technology (mobile telephone), society (the

embedded social context of use), and individuals (adolescents' agency). I argue that it is necessary to locate the present study within a theoretical discourse. As Hall's (1989) suggested in his critique on the paradigm of media and communication research, the actual practices and uses of media and information technology should be grasped under a larger framework of social theory, in order to deal with the relationship between individual and technology. He noted that the main crisis of dominant paradigm in media and communication researches is that they are constituted as a "self-sustaining discipline" (Reimer 1998: 137), in which the empirical exploration of ICTs is not theoretically grounded. In this respect, the studies of ICTs should be contextualized within the relevant theoretical perspectives (Reimer 1998: 139).

Reimer (1998) mentioned that the theoretical endeavor of social analysis is to overcome a number of difficult theoretical problematiques, including the opposition between constancy and change, and between structure and agency (p. 139). Thus, the interplay of structure and agency, which is not theoretically considered in the previous studies of media and information technology, will be reconsidered in the current study. This study endeavors to make a theoretical departure from the traditional linear understanding of the impact of technology. In this respect, adolescents are conceived as active social actors. Yet, their experiences of using mobile telephone should be grasped under the context of use since their social action is not free-floated. Indeed, the theoretical account of contextualizing the use of technology does not imply a passive perspective towards adolescents. At the same time, the notion of conceiving adolescents as active social agents does not necessarily deny the importance of social context as providing structural constraints.

The structure and agency should be taken into account at the same time¹³.

Thus, adolescents' use of mobile telephone is best understood as an interactive process, which is characterized by the complex interplay of mobile technology, the context of social relationships, and adolescents' voluntaristic nature. This framework does not undermine the importance of technology, structure and agency. Rather, these factors should be considered together.

Specifically, this research attempts to analyze empirically the micro social processes of adolescents' mobile telephone use in their everyday lives with reference to the theoretical discussion of technology, structure and agency. With this theoretical approach, adolescents' use of mobile telephone will be situated within their everyday life context including family and peer relationships. Both adolescents' and parents' perceptions and experiences of mobile telephone use will be taken into consideration, since the perspective of parents is crucial in understanding the importance of family dynamics in providing structural constraints to adolescents. On the other hand, adolescents' use of mobile telephone within the peer group context will be examined, since it is crucial in grasping adolescents' perception and use of mobile telephone in public social lives. In this respect, adolescents' mobile telephone use is perceived as a social practice. At the same time, adolescents are conceived as active social actors in constructing the meanings of mobile technology and interpersonal relationships. The meaning of mobile telephone is open for multiple definitions, emphasizing the possibility of adolescents to have their own perception of mobile telephone.

¹³ The theoretical attempt in understanding the interplay of structure and agency is parallel to Giddens' concept of structuration. The theory of structuration attempts to transcend the dualism of structure versus agency by focusing on social practices which produce and are produced by structures. Structures are not something external to social actors. Instead, they are produced and reproduced by actors in their social practices. See Giddens' *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*, 1979.

In sum, the complex interplay of the nature of the technology (the material nature and functional capacities of mobile technology), the embedded social structure (adolescents' social position within the context of social relationships) and users' agency (adolescents' active construction, definition, and reaction of situation) will be considered in this study. Adolescents' everyday life experiences of mobile telephone is characterized by the continuous processes of negotiations and interactions, which reflect the capacity of mobile technology, the importance of family dynamic, the interaction within peer cultures, as well as adolescents' subjective construction and interpretation of the device.

In the following section, I will attempt to introduce the concept of *domestication*, which will be served as an analytical framework for understanding the process of adolescents' integration of mobile telephone into their everyday lives. The notion of domestication is employed by Silverstone et al. (1992) to study the interrelation of information and communication technology and everyday life. It can be served as a useful reference point to capture the dynamic nature of the relation between individual, technology and social structure.

3.2 Domestication

The concept of domestication of technology (Silverstone et al. 1992, Silverstone 1994, Lie and Sorenson 1996, Green 2002) refers to the capacity of individual and social group (a family or an organization) to appropriate the technological artifacts into their structure of everyday life (Silverstone 1994: 98). It is a process of integrating a technological artifact into their everyday routines, which is pursued by individuals who seek to actively manage and control their technological spaces and to make the technological device meaningful and useful to them (Silverstone 1995:

64). It is a practical and emotional adaptation to technologies, which can be either seen as a collective effort within a group or as an individual attempt (Lie and Sorensen 1996: 10, 17). Through the process of domestication, a technological artifact is accommodated in the structure of everyday life.

Indeed, the concept of domestication has been adopted in various ICTs studies such as television (Silverstone 1994, Vestby 1996), home computer (Haddon 1992, Aune 1996), VOD (Ling et al. 1999), and telephone (Vestby 1996). However, most of the scholarly works analyze the gendering of technology by advocating that the use of technology is embedded within the gendered relations of the family, specifically the sexual division of labor (Vestby 1996, Aune 1996). I argue that the gender analysis has its limitation, since it ignores the role of adolescents in the use of technology.

3.2.1 Process of Domestication

Silverstone et al. (1992) divided the process of domestication into four major phrases, including appropriation, objectification, incorporation and conversion.

Appropriation is the process through which a technological artifact physically and mentally accesses to the family and its members. It involves family decision to purchase a technological device or not. It is a process of acceptance and resistance of the technology. The reason of purchasing mobile telephone, the decision making process of purchase, the negotiation between parents and adolescents regarding the purchase and use of the technology are under the appropriation phrase.

Objectification refers to the process through which the technology is given its place and made visible to the family. The objectification of technology can be grasped by investigating the strategies of physically displaying the technology at

home.

Incorporation refers to the process through which the technological artifact is integrated into the routines of everyday life. Incorporation is a way of making technology a part of the self (Steele and Brown 1995). Technology enters into the family routines and becomes an important element in organizing family and social life. It can be grasped by analyzing the pattern of mobile telephone use in relation to family structures and dynamics. It is claimed that the process of integration of technology is both practical and symbolic. The integration process consists of continuous negotiation and struggle of social relationships between family members. Through the process of incorporation, the technological artifact becomes part of the self.

Conversion refers to the process by which the users use technology to define themselves in the broader social world. The symbolic meaning of mobile telephone can be shown in this process (Aune 1996: 94-95). Technological artifact is symbolically used to identify membership or social status within the group in the wider social world (Green 2002: 45). A technological artifact, which is served as a symbolic object, is attached to one's own identity and social relations. Thus, conversion is a process of self-presentation of identity to other social groups outside the family. The conversion phrase indicates that the process of domestication is not limited within the family. It is also articulated in the peer group culture.

The process of domestication involves negotiation of the use of technology, which relates to the domestic allocation of space and time, the allocation of power and control, independence and autonomy among the family members. Through the process of domestication, the meaning of technology is transformed when it is integrated into the dynamics of everyday life.

In this study, special attention would be paid to the micro social processes of domestication of mobile telephone into adolescents' everyday lives. As Silverstone et al. (1992) noted that objectification is expressed in usage and in the physical dispositions of technological objects in the spatial environment of the home (p.22-23), it is relatively difficult to identify the actual practices of objectifying the mobile telephone in a spatial sense. Silverstone et al. (1992) suggested that the process of objectification could be identified in another ways if the technological artifacts are non-material or semi-material in nature (e.g. the television programme). As mobile telephone is characterized by its portability and mobility, it can be objectified in the talk of the household. As a result, regarding the process of objectification, special attention would be paid to the perception and discussion of mobile telephone among adolescents and parents.

3.2.2 Domestication as an Interactive Process

The notion of domestication of technology is adopted in this study since its underlying theoretical assumption is parallel to our claim, in which it perceives the process of technology use as an interactive process.

First, the concept of domestication perceives users as active social agents in defining and constructing the meaning of technological artifact. Users actively participate in shaping and constructing the meaning of technology, since the meaning of technology is not fixed in the process of production, but constantly reshaped and negotiated by the users in different social context.

On the other hand, it examines the use of technology within the social context of use, especially the family context. However, I argue that the context of peer group social relations should also be considered since the previous studies of the

domestication of technology tend to neglect other relevant context of social use of technology. Thus, apart from exploring the family processes of mobile telephone use, special attention will be paid to the mobile telephone use within the peer group culture, since it is believed that peer group mobile communication is important among adolescents mobile telephone culture.

Most importantly, the notion of domestication also implicitly attempts to transcend the deterministic orientation of the previous studies of technology. It is suggested that the concept of domestication illustrates the *two-way process* of individual and technology, in which the technology is adapted to the user's everyday life and user's everyday life is adapted to the technology (Aune 1996: 91, 93). The interactive relationship between human and technologies is the outcome of the process of domestication characterized by the complex process of continuous struggles and negotiations between family members (Silverstone et al. 1992, Lie and Sorensen 1996). It describes the dual relationship (Lie and Sorensen 1996: 8) between individual and technology in which the technological object and meanings are formed and transformed (Silverstone 1994: 98). Under the concept of domestication, the development of technology represents an occasion for change, but it may be a force of stability as well. In this respect, under the notion of domestication, the role of mobile telephone in adolescents' everyday life is perceived as an occasion for generating social changes, as well as a force of continuity in reinforcing the preexisting structure of social relationships.

3.3 The Research Questions

This study can be served as a step towards a re-approaching of the social significance of technology. The intention of this study is not to trace the "impact"

of mobile telephone in a “cause and effect” respect. On the contrary, this study aims at empirically examining the ways in which adolescents use mobile telephone in the context of their everyday life experiences. Specific attention would be paid to adolescents’ use of mobile telephone in relation to family and peer group contexts. Mobile telephone would be perceived as a “symbolic resource” (Buckingham 1993: 13), which is manipulated by adolescents to incorporate the device into their everyday lives.

Thus, this study empirically analyzes adolescents’ use of mobile telephone from its technological, social and symbolic aspects. From the technological aspect, the distinctive functional capacities of mobile telephone will be taken into consideration. Yet, it is located under the context of various social relationships. Further, the meaning of mobile telephone is not simply defined by its material sense. Rather, mobile telephone has its social and symbolic meanings, which are actively constructed by adolescent users within the context of social interactions and relations. Various empirical questions regarding the micro social processes of adolescents’ mobile telephone use will be considered in detail. First, how do adolescents and parents construct the meaning of mobile telephone? This question involves the exploration of adolescents’ and parents’ perceptions and definitions of mobile telephone. Second, how do adolescents integrate mobile telephone into their routines of everyday lives, including family and peer group relations? Special attention will be paid to the micro social processes of negotiations and uses of mobile telephone. Various related issues such as the negotiation of family power, construction of identity, and the struggle of freedom and autonomy will be considered since they are parts of the everyday routines of adolescents.

Apart from examining the micro social processes of mobile telephone use

among adolescents, I also attempt to relate the present study to the ongoing theoretical debate in the studies of information and communication technology. I attempt to transcend the deterministic and unidirectional analysis by emphasizing the interrelationships of adolescents' mobile telephone use in its embedded social context in order to have a comprehensive understanding of the process of the use of mobile technology among adolescents' everyday lives.

CHAPTER 4 — Methodology

This study adopts a qualitative approach to examine adolescents' use of mobile in the context of family and peer group relationships. The methodological objective is to capture the wide range of mobile telephone experiences among adolescents. Thus, a qualitative approach is adopted in order to collect information about the actual practices of adolescents' mobile telephone uses.

Although the existing quantitative data on mobile technology provides general information for grasping the trends of mobile telephone uses in Hong Kong, it cannot help us understanding the ways in which mobile telephone is actually used in their everyday life context. Thus, a qualitative approach is adopted to explore various possibilities of adolescents' mobile telephone experiences. This study is not aimed at providing generalized arguments and conclusions of adolescents' use of mobile telephone. Instead, it is aimed at exploring how adolescents are using mobile telephone in their social lives.

Previous studies of information and communication technologies indicate that there are inadequate studies allowing adolescents to give voice to their own experiences in using the technology as well as their perception of the device. In fact, adolescents' technological experiences are largely ignored in the academic researches. Thus, this study bases on adolescents' own point of views by using a qualitative approach so that they are able to share their own interpretations and experiences of mobile telephone use. Through qualitative interviews with adolescents, we are able to capture the ways in which adolescents making sense of mobile telephone to form their own perspectives.

4.1 The Research

This study is based on the in-depth interviews of adolescents and parents conducted in Hong Kong from December 2002 to March 2003.

4.1.1 Research Design

In the initial stage of study, I decided to employ the family case study method to capture the family interaction and negotiation processes regarding the use of mobile telephone. However, it was discovered that there are many difficulties to formulate enough “matching cases” due to the high rate of refusal by respondents during the data collection stage. Many adolescent respondents refused to invite their parents to participate in in-depth interviews, at least they were uninterested in it. As a result, there are only three matching cases conducted in this study (see Table 8). The present study would base on the group interviews, individual in-depth interviews, and observation as the main data sources.

4.1.1a The Research Design and the Issue of Reliability and Validity in Qualitative Research

It is suggested that the reliability and validity in qualitative research (especially in conversation analysis) is to assure the accuracy of recordings and testing the truthfulness of analytical claims (Perakyla 1997: 216). This study attempts to use the design of triangulation (Lincoln and Guba 1985, Merrick 1999) to increase the accuracy of the data. Triangulation refers to a methodological design which checks the accuracy of specific items of data by using different sources of data. By employing multiple sources of data (including group interviews, individual in-depth interviews, and observation), the internal validity can be assured.

Since families are multigenerational in nature (Davilla 1995: 90), both adolescents and parents contribute to the construction of the meaning of mobile telephone. Thus, it is necessary to examine adolescents' mobile telephone use by including both adolescents' and parents' perception and experience of mobile telephone. The accuracy of interview data can be assured by this “intersubjective methodology” (Davilla 1995).

4.1.2 Data Sources

This study depends on three main sources of data. The first basic source of data was the focus group interviews with adolescents and parents. The second source was individual in-depth interviews with adolescents and parents. The third data source consisted of the observations of the focus groups. Before conducting the formal interviews, a pilot focus group interview was conducted in November 2002 to test the interview questions.

4.1.2a Group Interviews

It is suggested that adult researcher's power can be minimized by interviewing adolescents in a group context (Eder and Fingerson 2002: 182-183). Eder and Fingerson (2002) advocated that group interaction is the most natural and comfortable way for children and adolescents to share their thoughts and experiences, as they are more relaxed in the company of peers (p. 183). They also suggested that interview can be conducted within their everyday life settings because adolescents are already familiar with the environment in order to develop a more natural interview setting (Eder and Fingerson 2002: 183). In this study, focus group interviews took place after the end of the school lessons, church meetings, scout

meetings, and at their homes. Such kinds of interview arrangements have many practical and methodological advantages. First, it creates a more comfortable and natural interview settings for adolescents to share their feelings and experiences. Second, it is easier for both the researcher and the respondents to arrange for suitable times and places to conduct the interviews.

Seven adolescents' focus group interviews and one parent's focus group interview were conducted. Each of the focus groups had two to five respondents. Table 5 describes the detail of interviews.

4.1.2b Individual Interviews

Furthermore, individual in-depth interviews served as another data source. Due to the difficulties in recruiting parents to have group interviews (such as the difficulties to gather a group of parents at the same time and place), they were managed in a more flexible manner to accommodate the working hours of parents. In addition, three individual in-depth interviews were conducted with adolescents according to their preferences.

Both the focus group interviews and individual in-depth interviews were started after researcher's self-introduction and followed by a brief explanation to the respondents of the objectives of the study. The interviews lasted for approximately forty-five minutes to two hours. They were taped and transcribed with respondents' consents.

4.1.2c Observing Focus Group Respondents

Another source of data consisted of the observations in the focus group interviews. Additional data could be obtained from the observations of researcher during the process of focus group interviews. Since the setting of focus group

interviews was similar to their actual setting of mobile telephone use, the field notes could be served as an additional data sources to understand their actual context of mobile telephone use. Since the focus groups were based on the existing friendship network of adolescents, respondents were familiar with each other. They could behave in a more relaxed manner during the interviews. Thus, researcher could observe some of their social encounters in the focus group setting. Some useful data were recorded during the focus group interviews if they were related to the present study.

In general, the data collected in the focus group interviews were more fruitful and condense, whereas the data collected in the individual interview setting were relatively thin. The possible reason was that the group interview setting was comparatively more neutral which stimulated adolescent respondents to express their true feelings towards mobile telephone use. Moreover, group interviews provided additional data sources (the observation of focus group) to understand the mobile telephone related micro social interactions. There was no contradiction of data between the focus group interviews and individual in-depth interviews.

4.1.3 Subject Selection

This study used the snowball sampling technique to recruit adolescent and parent respondents. Some of the respondents were recruited from the researcher's social network. Respondents in turn recruited several of his or her friends to join the focus group interviews. In addition, respondents # 18 to #24 were recruited with the aid of social workers in a youth centre at Kung Tong. All participations were voluntary.

Twenty-four adolescents participated in the focus group interviews and

individual in-depth interviews. They were ranged from 11 to 20 years old. Apart from conducting interviews with adolescents, four parents were interviewed to obtain additional information regarding adolescents' use of mobile telephone. Adolescents and parents were interviewed separately.

With two exceptions, all adolescent respondents were mobile telephone users (see Table 6). However, these two still have mobile telephone experiences, so it is thought to be relevant to our analysis. Table 4 and 5 describe the general profiles of respondents, and table 6 to 7 present the mobile telephone experiences of respondents.

Although the demographic characteristics of the respondents were not strictly controlled, our sample shows a relatively even distribution across the gender and age. Table 2 describes the demographic characteristics of the respondents.

4.2 Interview Core Questions

There were two sets of interview core questions. The first set was designed for adolescents, whereas the other set was for parents. Semi-structured questions were asked in the interviews. The interview core questions were divided into following themes:

Adolescents

1. Adolescents' perception of mobile telephone, including the reason of purchasing mobile telephone, attitudes towards mobile telephone.
2. Pattern of mobile telephone use, including the amount of use, purpose of use, habits of mobile telephone use.
3. Information input and output through mobile telephone, including the reporting of whereabouts to parents.

4. Mobile telephone use in school.
5. Mobile telephone use at home.
6. Perception of parental control over their mobile telephone use, including whether there are restriction on using mobile telephone or not and its details.
7. Perception of the relationships of mobile telephone use and various interpersonal communications.
8. Socio-demographic backgrounds.

Parents

1. Parents' perception of mobile telephone, including the reason of purchasing mobile telephone, attitudes towards mobile telephone.
2. Parents' perception of adolescents' use of mobile telephone, including the reason of purchasing mobile telephone to them, their perception of adolescents' pattern of use.
3. Information input and output through mobile telephone.
4. Formation of mobile telephone rules
5. Mobile telephone use at home.
6. Perception of the relationship between mobile telephone use and intergenerational communications.
7. Socio-demographic backgrounds.

The aim of these guiding questions was to capture adolescents' and parents' perceptions and actual experiences of mobile telephone use.

4.3 Method of Data Analysis

The focus group interviews and individual in-depth interviews were recorded and transcribed in detail.

After transcribing the interviews, the data were grouped into various conceptual categories. The categories were derived according to the concept of domestication, including appropriation, objectification, incorporation and conversion. The process of appropriation and objectification refers to the decision making process of purchasing mobile telephone (including the initiation of mobile telephone purchase), as well as the perception of mobile telephone. Incorporation refers to the pattern of adolescents' mobile telephone use in family context (including the issue of reporting). Conversion refers to the use of mobile telephone in peer group social network (including the collective use and sharing of handset among peer group social network).

CHAPTER 5 — Purchasing Mobile Telephone: Negotiating the Meaning of Mobile Technology

This chapter illustrates the parent-adolescent negotiation process in the stage of purchasing mobile telephone. Parents' motivations to purchase mobile telephone for their sons and daughters are closely related to their desire to obtain information in order to gain a sense of control¹⁴. On the other hand, adolescents tend to have various reasons to purchase mobile telephone. Some of them have no preference in using mobile telephone, whereas others have strong desire to have a handset.

Before describing and analyzing the parent-adolescent negotiation processes regarding the use of mobile telephone, it is necessary to describe the general picture on the use of mobile telephone among adolescent respondents. Our interviews show that all adolescent respondents have mobile telephone experience. Ten respondents have 1 to 2 years' experience, eight have 3-4 years', and four have over 4 years' experience in using mobile telephone. One girl shares mobile telephone with her mother, another girl does not have mobile telephone, but she still has mobile telephone experience by borrowing handsets from her parents and friends (see Table 9).

5.1 Purchasing Pattern

Two types of purchasing patterns can be identified. The purchasing pattern is closely related to the different definitions of the meaning of mobile telephone between adolescents and parents.

¹⁴ It must be noted that the meaning of "control" is not necessarily related to coercive parental power. Details will be illustrated in the following chapters.

5.1.1 Parents Initiate the Purchase

The first type of purchasing pattern is that parents initiate the purchase. Seven adolescent respondents belong to this category. Parents take the initiatives to buy a handset for their sons or daughters. In general, adolescent respondents of this category tend to have lower degree of participation in the decision making process of purchase. Specifically, they do not have a very strong desire to own a mobile telephone.

Interviewer: Do you urge them to buy a phone?
Respondent #8: No need to say it out. He gives it to me spontaneously.
Interviewer: Do you think you need a phone?
Respondent #8: No. As they give it to me, I use it.
(Respondent #8, female, 16 years old)

It can be explained by the fact that most of them are young in age. Their social networks are relatively simple. They have no strong practical reasons to purchase a mobile telephone. Some of them even attribute their purchase from their parents' point of views.

Interviewer: Why do you buy mobile telephone?
Respondent #24: Father and mother want it.
Interviewer: Do you urge to have one before?
Respondent #24: No.
(Respondent #24, female, 11 years old)

Yet, they participated in choosing the model of handset, the brand of handset, the network services and the monthly plan, which underwent the process of parent-adolescent negotiation. Thus, although they performed a relatively passive role in the decision making process of purchase, they still have certain degree of autonomy in choosing the handset, even though it was bounded by their parents.

Since most of the adolescent respondents are financially dependent on their parents (only two of them bought the handsets by using their pocket money), parents have the power to make major decisions in the purchasing process.

In the decision making process of purchasing mobile telephone, parents' main consideration was to fulfill their needs to contact their offspring. When a parent was asked to interpret the needs of an adolescent to use mobile telephone, she actually interpreted from her own point of view,

Interviewer: Do you think your child needs a mobile telephone?
Parent respondent #1: Yes, it is needed for contacting her.

The above dialogue clearly illustrates that parents tend to identify the needs of adolescents to use mobile telephone from their own point of views. Adolescents' needs to use mobile telephone for other purposes are largely ignored by parents. They are indeed claiming their own needs to communicate with their offspring.

Interviewer: Why do you buy mobile telephone for them?
Parent respondent #2: Because I think I have the need. I want to know her whereabouts. We have little time to communicate because of my work nature. When I return home at night, she's slept already. When I wake up, she's gone to school. So I think I need the opportunity to talk to her.

Interviewer: And you?
Parent respondent #1: I have the need. The need is mainly for me to contact her." (Laughter)

Interviewer: That's your need!
Parent respondent #1: Yes, our needs. But actually it's not totally true. From their point of view, it is not the case that they don't have the need at all. At the time when we give the phone to them, I think she...she also thinks that she...maybe when you are interested in interviewing her, she may think that she has the need to contact with

friends. But from my point of view, the need is that I need to contact her.

Indeed, the need of parents is *to know* the whereabouts of adolescents. It is a kind of information collection. The need of parents to gather information about their offspring is crucial. In contrast, the need of adolescents to use mobile telephone is not their main focus, since the act of purchasing mobile telephone is only the result of parents' decisions. Adolescents' motivation of using mobile telephone is neglected in the decision making process of purchase.

5.1.2 Adolescents Initiate the Purchase

The second type of purchasing pattern is that adolescents initiate the purchase. Twelve adolescent respondents take the initiatives by advocating to parents their desire to have mobile telephone. However, they need to seek approval from parents, since they are still financially dependent on their parents. Further, there are two adolescent respondents who purchased mobile telephone by using their own money without seeking approval from their parents. They just informed their parent about their decisions. Comparatively, they have greater degree of autonomy in the use of mobile telephone.

When it was the adolescents who initiated the purchase of mobile telephone, a more acute negotiation process between adolescents and parents was resulted. Adolescents needed to persuade their parents to buy the handsets. As a result, the family negotiation has already started right after the initiation. Usually, adolescents persuaded their parents to buy mobile telephone by advocating their functional and practical needs in order to illustrate that their needs were "legitimate". For instance, adolescent respondent #7 mentioned the process of persuasion,

- Interviewer: How do you persuade them?
- Respondent #7: I always have performances, so I absolutely need to use mobile telephone to contact people.
- Interviewer: And then?
- Respondent #7: They bought it after I urged them for a certain period.
(Respondent #7, female, 15 years old)

When adolescents were asked to interpret the reason of parents' approval for purchasing mobile telephone, they noted,

- Respondent #10: Father and mother think that it's time to buy a phone for me, because they cannot contact me for most of the time.
(Respondent #10, male, 18 years old)
- Respondent #9: They bought it until I had a trip. They had the need to contact me.
(Respondent 9, male, 16 years old)

Their responses indicate that fulfilling parents' expectation is crucial in the decision making process of purchasing mobile telephone. Adolescents understand that parents define the meaning of mobile telephone by its instrumental usage. Thus, in order to increase the possibility of having the handset, they need to advocate their practical needs.

Adolescents' needs to seek approval from parents reveal their financial dependence upon parents. Some respondents mentioned that the financial dependence upon parents is the main reason for obeying the mobile telephone rules set by parents,

- Interviewer: Do you need to seek approval from parents when you change the monthly plan or phone model?
- Respondent #12: We must tell them. They pay for it. If they receive the monthly bill, they don't know what happen.
- Interviewer: What would be the situation if you pay by yourself?

Respondent #12: No. It won't be their businesses. It will be useless to tell them. It is paid by me, so no need to report.
(Respondent #12, male, 18 years old)

Thus, paying for one's own (including the monthly bills or the phone expenditure) is a sign of autonomy and independency in using mobile telephone. Adolescents believe that parents have no right to control their mobile telephone use any more. Indeed, the degree of autonomy is greater if adolescents purchase mobile telephone by using their own money.

Since parents are the main decision makers in the appropriation process, their motivations of purchase are worth considering. Parents have to anticipate the possible consequences of purchasing mobile telephone for their offspring, as well as its effects on the family life. In general, parents' main concern is the safety of their offspring. Purchasing a mobile telephone increases parents' ability to contact adolescents and vice versa. It provides secure feeling to parents when adolescents are outside their physical contact.

5.2 Establish Rules that Govern Mobile Telephone Usage in the Purchasing Stage: Parents' Perception of Mobile Telephone

In the process of purchasing mobile telephone, family rules regarding the use of mobile telephone are already under formation. It is more obvious if parents initiate the purchases. As mentioned, parents need to anticipate the possible consequences of adolescents' use of mobile telephone. To ensure adolescents have appropriate mobile telephone behaviors, family rules are formed.

In general, the rules are more explicit in restricting adolescents' use of mobile telephone if parents initiate the purchases. From parents' interviews, it is found that parents want to observe adolescents' use of mobile telephone to see whether they

have the ability to use mobile telephone in a proper way. Parents tend to explain and inform adolescents verbally about the rules of using mobile telephone. For instance, they make clarification about the function of mobile telephone -- the phone is a communication device, not a toy or a game player. They mention to their offspring that they should handle the phone responsibly.

Parent respondent #3:	They know the rules of using mobile telephone.
Interviewer:	What's that?
Parent respondent #3:	Not to use mobile phone for chatting for example. And they can't tell the phone number to friends so easily. The phone is for me to contact them, and for them to contact me, etc.
Interviewer:	You told them?
Parent respondent #3:	I urged them to do that. I told them before giving the phone to them. I told them the purpose of buying the phone, that's for me to contact them when they go out. They can contact me if they need me.

(Parent respondent #3)

Parents clarify their expectation to adolescents so as to ensure that adolescents can develop a proper manner in using mobile telephone. They establish family rules to regulate adolescents' use of mobile telephone in a rational manner.

5.2.1 Control the Amount of Use: Excessive Use of Mobile Telephone

Regarding parental control of adolescents' mobile telephone use, one of the most common controls is related to the overuse problem. Parents and adolescents have already negotiated the amount of mobile telephone use in the discussion of the monthly plan. The quota of the plan is the result of the family negotiation. Thus, adolescents need to use within the quota limit. Parents perceive the limit of the plan

as an important line to make sure that adolescents do not overuse. In fact, the control of the amount of use is partly economically driven, since it is the parents who pay for the bills in many cases.

However, parents' concern of overuse is not solely due to the mobile telephone bills. Rather, it reveals parents perception of the appropriateness of using mobile telephone. Excessive use of mobile telephone is commonly perceived as a problematic act, which indicates irrational and irresponsible use.

Parents believe that adolescents should have the ability to control their amount of use. Since the monthly plans are the outcomes of negotiations between adolescents and parents, overuse means that adolescents are not responsible in controlling their use. Thus, it is not solely an economical or money problem. Thus, most of the parents are aware of the problem of overuse, since it shows whether the adolescents have the competence in achieving self control over mobile telephone use or not.

One interesting finding regarding the amount of mobile telephone use is that adolescents should make a full use of their monthly quota. They mentioned that since parents know their amount of mobile telephone use per month, *they should use all quotas*. If too many minutes are left, parents may try to reduce the monthly plan. Adolescents mentioned that their amounts of use fluctuate in which the amounts of use would be the highest during school holidays. It is better for them to use up the quota of the plan to avoid their parents changing the plan. Once the monthly plan is reduced, it is difficult to increase the amount of service plan.

- | | |
|----------------|---|
| Interviewer: | Are there any rules regarding the use of mobile telephone? |
| All: | The most important rule is no overuse. |
| Respondent #8: | Don't overuse or underuse. It's a waste if the quota is underused, 600 minutes... |

- Respondent #9: It's very embarrassing. Sometimes parents say, 'is it too much for the plan? It's better to reduce the quota'. That's very bad! We need to use more minutes during holidays. So it's inconvenient to change the plan. So I say, 'no no, the plan is suitable', and try to find ways to 'burn' out the minutes.
- Respondent #7: Yes! If we have spare minutes, we would call others and chat for a while, and try to burn out all the minutes. It's a waste if you don't use it.

Thus, the monthly plan is symbolized as a family contract, in which adolescents and parents have compromise their uses of mobile telephone. The one who overuse is interpreted as without competence to use the mobile telephone properly. Thus, parents have negative feelings towards mobile telephone overuse.

5.2.2 Control of Situation of Use: Using Mobile Telephone at Home is Banned

Some adolescents noted that using mobile telephone at home is prohibited. Mobile telephone can only be used when they go out. Parents believe that it is better to use the household telephone at home. Most of the parents have negative feelings towards using mobile telephone at home.

- Interviewer: Do parents scold you when you use mobile telephone at home?
- Respondent #10: They would say, 'why you use mobile telephone? There is quota limit! No quota limit for home telephone.'
- Interviewer: Their concern is that they are afraid that you would use beyond the limit?
- Respondent #10: It's not the problem of overuse. It's the problem of waste. Why not use the same method when you don't have to use more minutes.

In contrast, parents do not have strong negative feelings when adolescents use home telephone, even though the use of home telephone can be heavy. Our interview data indicates that there are no strong rules regarding the use of home telephone.

Indeed, the restriction of mobile telephone use at home is closely related to an assumption that mobile telephone conversation is a waste of time. Most of the parent respondents noted that chatting on mobile telephone is a waste of time. It also reveals parents' attempt to control over the illegitimate use of mobile telephone.

5.2.3 Control of Content: Legitimate Use

Most parents think that it is not a good practice to use mobile telephone just for chat. Adolescents should talk only for instrumental use, not expressive topics, such as coordination of social activities or discussion of homework with schoolmates (legitimate topics). Chatting is a waste of time and money. Parents expect that adolescents should have a rational manner in using mobile telephone. Specifically, adolescents should not use mobile telephone for chatting.

Parents' perception of adolescents' use of mobile telephone is based on the perception that adolescents' use of mobile telephone is functional only when they use it for family-related communication. Other non-family use is either ignored or denied by parents. Indeed, parents' concern for overuse reflects parents' perception of mobile telephone as a functional tool. They believe that adolescents' use should be "legitimate". For instance, mobile telephone is used to manage family communication, coordinate social activities, or discuss homework, which are functional and practical.

5.3 Adolescents' Perception of Mobile Telephone

In general, parents' motivation of restricting adolescents' mobile telephone use is based on their perception of mobile telephone. Indeed, adolescents' actual use of mobile telephone is affected by parents' perception of the handset, since adolescents have been constrained by parents in using the device. In the following section, I attempt to illustrate adolescents' perception and use of mobile telephone, so as to illustrate the different definitions and perceptions of mobile telephone between parents and adolescents. Adolescents and parents constantly negotiate the meaning of mobile telephone in their everyday life communications.

Adolescents use mobile telephone to fulfill various personal needs, which can be divided into two main categories: instrumental use and expressive use¹⁵.

The interview data illustrate that adolescent respondents tend to advocate their instrumental use of mobile telephone. It is illustrated by the fact that adolescents explain their needs of using mobile telephone by emphasizing their legitimate reasons.

Respondent #6: The need started at attending secondary school. The school is far away from my home...actually it's because many people use it, so I use. All of us use it, right?

(Respondent #6, female, 17 years old)

At the beginning, respondent #6 explained her needs of using mobile telephone by emphasizing the practical reason. However, she immediately revealed her real intention of using mobile telephone, showing her preference of collective experience of using mobile telephone.

¹⁵ The classification of expressive use and instrumental use of mobile telephone was firstly derived by Ling (2002).

Respondent #9: Many people do...I have the need to use mobile telephone, such as the stuff in scout unit. I need it to contact people
(Respondent #9, male, 16 years old)

Respondent #9 explained his needs of using mobile telephone in practical terms. He needs to coordinate people and activities. Indeed, most of the adolescents in the focus group interviews express that their use of mobile telephone is legitimate and rational. The following discussion in the focus group interview #2 further indicated their perception of mobile telephone,

Respondent #9:	It doesn't have so much leisure things to talk to. I always talk about formal stuff.
Respondent #6:	No! Imaging when others say, 'where will you go on Saturday?' You have already used most of the time to discuss leisure activities.
Respondent #9:	I use the phone to discuss, 'what things are we going to discuss in tomorrow's meeting?' or, 'why do you perform so bad recently?' or my teacher calls me and says, 'you finish this, and how...' I do these formal communications."
Respondent #7:	Yes! It depends. We are not such kind
Respondent #6:	The fact is that you just can't remember it. You must try before!"
Respondent #9:	... (Silence)

Interesting, although the data show that most of the adolescents use mobile telephone for expressive functions, adolescents tend to present themselves as "proper users" by emphasizing their practical needs and purposes. In the following section, I attempt to illustrate adolescents' perception of the instrumental use and expressive use of mobile telephone.

5.3.1 Instrumental Use: Coordination of Social Activities

Most adolescent respondents (as well as parent respondents) agree that mobile telephone allows them to have a more flexible arrangement of social activities and interactions. They are able to make adjustments and rearrangements of social gatherings, which transcend the constraints of time and space.

Respondent #11: It is useful when I meet someone on the street. I would worry if they would be late. Do we meet at the right place? It is better to have a mobile phone. It's convenient, and I don't need to find phone booth on the street.

Coordination of social activities and interaction relates to the functional capacity of mobile telephone. Since mobile telephone is a portable communication device, adolescents can have greater mobility with the use of mobile telephone.

Respondent #10: There is no limit in using mobile telephone. We can use it at any time and place especially on the street. No need to stay at home and wait for calls.

Adolescents believe that mobile telephone provides functional alternatives in making social interaction. Since mobile telephone is an individualized and personalized communication device, they are able to construct their own communication centers so that sharing and competing for phones at home can be reduced to the minimum.

Respondent #11: No need to compete for telephone (when using mobile telephone), because the phone belongs to me.

Respondent #10: There is insufficient phone line at home because many people share one. So I use mobile telephone. Four people share only one home telephone. So I use mobile telephone at home.

Thus, adolescents think that one of the advantages of using mobile telephone is to make direct communication with others. They receive calls directly without the interferences of parents.

Interviewer: Do you turn on the mobile telephone at home?
Respondent #5: Yes. Otherwise they can't contact me.
Interviewer: That is...
Respondent #5: People don't like to dial the home number. It disturbs others.
Interviewer: You don't dial the home number but mobile telephone?
Respondent #5: Yes. They would know who is calling.
(Respondent #5, male, 17 years old)

Respondent #14: Others can contact me directly by mobile telephone. It's better.
(Respondent #14, female, 15 years old)

5.3.2 Expressive Use: Being Connected

The expressive use of mobile telephone is that adolescents use mobile telephone to maintain emotional and social communications and interactions. Adolescents commonly use mobile telephone to communicate with friends. Many adolescents make mobile phone calls without any specific purposes. Thus, mobile telephone calls do *not necessarily be purpose-oriented*. They just use mobile telephone to sustain close relationships with friends without instrumental or functional reasons.

Respondent #11: I call others and chat when I feel bored. That's frequent during traveling.
(Respondent #11, male, 18 years old)

The importance of call is that they are *connected*. A common practice among adolescents is that they do not turn off the phone. They prefer switching off the

sound or changing to vibrate mode rather than switching off the phone. The reason is that they want to be contacted by other without missing out any information. They are sure that others can contact them as well as they are able to contact others at any occasion.

- Interviewer: Do you think you need a phone?
- Respondent #19: Yes. It is convenient. I can't imagine if I can't use it anymore...it seems addicted.
- Respondent #20: 100 percent needed. It is inconvenient if people can't find you. It is inconvenient when I go out without a phone. I can't date people. For instance, if you are on the street and your friends are late, you can't find them if you don't have a mobile telephone. You don't know where they are. You are just unable to know many things.

However, adolescents' perception of being available varies,

- Respondent #7: It depends.
- Respondent #8: It is better to be contacted when important things happen.
- Respondent #9: If things go wrong, I can cut the phone call.

Some adolescents believe that being constantly connected is a form of invasion of privacy,

- Interviewer: Do you think that it is good for people to find you at any time?
- Respondent #17: No. Does it mean that I need to receive the call when I go to the toilet? Some private time is needed.

On the contrary, adolescents who initiate the purchases tend to have a more independent style of use. It can be illustrated by the example that adolescents can also make their own rules to exert certain control over their parents. For instance, adolescents formulate their own rules to let their parents follow.

- Respondent #11: They seldom call me because I've told them not to phone me. The phone is not for the family. They seldom call me unless there are important things.
- Interviewer: Do you have consensus with parents?
- Respondent #11: Yes. I've told them, 'You don't need to call me if nothing happens.'
- Interviewer: Do they feel that it's a problem?
- Respondent #11: Yes. My mother would say, 'does it mean that I can't call you at all?' But sometimes they just say something boring, like 'where do you go?', 'have you finished the meal?' etc. I think it's useless to say such things, boring. So I don't allow them to call me.
- (Respondent #11, male, 18 years old)

Also, adolescents dislike parents to call them at certain period of time. Thus, parents also need to know the rules of adolescents to make suitable contact.

- Interviewer: Would you call them if they don't reply your call?
- Parent respondent #3: Yes. But I wouldn't call them during the scout meeting. I call them when the meeting ends. They can't take the phone along or receive calls during meetings. They feel angry if they break the rules because of me. They follow the rules in scout unit.

5.4 Different Perception of Mobile Telephone between Adolescents and Parents

There are competing perceptions regarding the meaning of mobile telephone between adolescents and parents, which provides the symbolic base for negotiating the use of mobile telephone. Parents tend to perceive adolescents' mobile telephone as mainly an instrumental device for family communications. Even though parents use their mobile telephone in an expressive manner, they still have different perception towards adolescents' use of mobile telephone. In general, parents have

double standards in defining and constructing the meaning of mobile telephone. Adolescents' mobile telephone is exclusively for family functioning. They advocate that adolescents' use of mobile telephone must be functional, rational and legitimate. On the contrary, adolescents have various perceptions of mobile telephone, not just limited to family communication.

Adolescents believe that there are intergenerational differences in constructing and defining mobile telephone.

- Interviewer: Do you know how parents perceive mobile telephone?
Respondent #10: Functional is enough. Not so expensive.
Respondent #12: It's only a device, which can be used for a long time. No need to be trendy.
Respondent #11: It's not necessary to change model. If it does not work, you should repair it and no need to buy a new one.
Respondent #10: Don't show it.
Respondent #11: If I want to buy a new one, they would say, "It still works."

In sum, adolescents and parents have different orientations in constructing and interpreting the functions of mobile telephone. Parents interpret the needs of adolescents' use of mobile telephone exclusively as a tool for family communication. On the contrary, adolescents use mobile telephone to fulfill their multiple needs.

- Respondent #11: We both have the needs. They have the need to contact me. I have the need to contact others.
(Respondent #11, male, 18 years old)

The distinction between parents' need and adolescents' need is clear. Although the need orientations are not mutually exclusive, they do reveal their different perceptions and definitions of mobile telephone. Parents tend to define the mobile telephone use of adolescents by emphasizing the need of parents to make contact

with adolescents. Adolescents define their needs in various ways. Some of them have the same orientation with their parents, which is for family communication. Others define the use of mobile telephone as maintaining interpersonal communication, including both family and friends. In general, parents' acceptance of purchasing mobile telephone for adolescents is the result of parents' attempt to make contact with their sons and daughters. Thus, *although mobile telephone is a personalized and individualized communication device in its functional point of view, the meaning of mobile telephone is under construction and negotiation within the family context.* Adolescents' use of mobile telephone undergoes the negotiation process in which family discovers and anticipates that mobile telephone has its consequences on family life.

CHAPTER 6 — Negotiating Boundary and Autonomy: Mobile Telephone and Family Life

This chapter describes the process in which mobile telephone is integrated into adolescents' routines of family life. I argue that adolescents actively use mobile telephone to manage family boundary and negotiate autonomy. It is through the process of incorporating mobile telephone into family life that adolescents search for their identities.

According to Noller (1994), identity is a set of belief about one's relationship with others, including family relations and peers group relations (p.51). The process of identity construction is a process of "individuation" (p.51), which refers to the ways that adolescents search for a clear sense of personal boundaries. This chapter examines the process of adolescents' identity explorations in their family lives. The family negotiation of mobile telephone use is clearly related to the identity achievement of adolescents (p.53).

I attempt to illustrate that adolescents' mobile telephone use is indeed a process of family boundary negotiation between adolescents and their parents. The complexity of parent-adolescent negotiation process is especially obvious in the "reporting" issue. Negotiating the use of mobile telephone is part of the process of management of family boundaries and relationships, which indicate adolescents' attempt to gain more autonomy and independence. At the same time, parents also use mobile telephone to gain more control over adolescents' social activities.

6.1 Reporting

It is believed that mobile telephone allows users to communicate with others beyond physical and temporal constraints. It implies that parents can constantly contact adolescent mobile telephone users. Adolescents' situation of constant accessibility can be grasped by analyzing the issue of "reporting".

6.1.1 Parents' Perception of Reporting

From parents' point of view, reporting is portrayed as an additional parenting strategy in maintaining remote communication with adolescents. Adolescents' purchase of mobile telephone is perceived by parents as a remote parenting strategy¹⁶.

6.1.1a Reporting as Information Collection

All of the parent respondents in this study have to work (one of them have part-time job). They use mobile telephone to coordinate their work and family responsibilities. Mobile telephone helps them to manage and organize their social lives in a more effective and timesaving manner. Thus, mobile telephone is an important communication device helping parents to maintain family communication during working hours. Parents use mobile telephone to communicate with family members, including their spouses, children and their parents. They believe that mobile telephone have important functions in maintaining family communication.

Parents believe that mobile telephone facilitates their knowledge of adolescents.

¹⁶ The concept of remote parenting is derived by Vestby's (1996) concept of "remote parenthood" which refers to parents' use of tradition telephone to maintain remote communication with their offspring. Rakow and Navarro (1993) also employed the concept of "remote mothering" to refer mothers' use of mobile telephone to manage their work and family lives.

Mobile telephone can be served as a new strategy to collect information about their offspring, especially their social activities. For instance, a father mentioned the advantage of mobile telephone,

Parent respondent #2: I know more about her. She can understand my desire to know more about her.

(Parent respondent #2, male)

The above quotation indicates that he has positive feelings towards mobile telephone use. Using mobile telephone is a way to show their caring about adolescents. He mentioned that he is unable to maintain constant interactions with his daughter due to his irregular working hours. Thus, mobile telephone provides new possibilities to parents to maintain family interactions.

6.1.1b Reporting as Adolescents' Responsibility

Parent respondents suggested that adolescents should have the ability to maintain *self-control* over their mobile telephone use. Parents expect that adolescents have the competence to manage and control their mobile telephone use. Such kinds of self-control include reporting to parents. Parents usually claim that reporting is not an explicit family rule. Rather, they believe that adolescents have the responsibility to report to them.

Interviewer: Do you think that children need to report their whereabouts?

Parent respondent #2: As they go out...it's the safety problem. I would feel more relieved if she calls me. But I think she should...it's her responsibility to do so. She needs to tell parents her location. Tell us that we don't need to worry so much. I think they should do that.

Interviewer: If they do not call you, how do you feel?

Parent respondent #2: I think they are not responsible. That makes me so afraid of her safety, or she has problems that can't be solved. It's better for her to call me rather than I call her. I know her situation.

(Parent respondent #2, male)

The above quotation illustrates that parents prefer adolescents to initiate the calls. It implies that parents can maintain their image of parental authority. Another implication is that parents believe that adolescents are able to show their competence of using mobile telephone. Parents believe that adolescents' act of reporting shows their understanding of parents' worrying feeling. Receiving adolescents' calls relieves certain kinds of worrying feeling. Parents believe that adolescents have the responsibility to report to parents and provide information related to their whereabouts: they are *expected* to do so. Even though adolescents may not necessarily be required by parents to report through mobile telephone, parents believe that it is still better to make a call to report their safety. Thus, parents have positive feelings towards adolescents' reporting act.

In addition, parents claim that reporting is reciprocal in nature. Parents advocate that they also have responsibility to inform other family members about their whereabouts.

Parent respondent #4: Reporting is a responsibility. It is not only applicable to children. It applies to all members. We also need to tell others when we go out.

(Parent respondent #4, female)

Thus, reporting is an act showing the responsibility of being a family member. However, even though reporting is reciprocal which applies to all family members, it is still asymmetrical in nature. Parents' information output are initiated by

themselves, but adolescents' output of information can be the result of parents' urge.

6.1.2 Adolescents' Perception of Reporting

I have suggested that parents tend to have positive perception of reporting. On the contrary, adolescents have different perception of reporting. Adolescents tend to perceive it as a kind of highly repeated and expected experience.

Respondent #8: The contents are repeated for thousands times.

Respondent #6: Exactly!

Respondent #8: It is expected. When I see their number, I immediately say "I'm coming back." And she replies, "Um..." and ends the call.

Adolescents mentioned that the contents of "reporting calls" are related to their activities outside home, physical locations, and the time of coming back. Receiving parents' phone calls is a highly expected experience.

Adolescents have different perception of reporting calls. For instance, adolescent respondent #8 mentioned that it is not desirable to be contacted by parents in certain circumstances,

Respondent #8: When I don't want to go home too soon, and mother calls me to come back, then it's not good at all. It's because she can contact me.

(Respondent #8, female, 16 years old)

Adolescent respondent #11 has similar perception. He mentioned that mobile telephone increases their chance to be contacted by parents, and they need to constantly report their whereabouts at the same time.

Interviewer: Do you agree that parents are more likely to contact you?

All: Of course!

Interviewer: What do you feel?

Respondent #11: It's bad.

Interviewer: Why?

Respondent #11: I always need to report my whereabouts. It's so annoying.

In general, they have negative feelings towards reporting. The main reason is that it is a constant act. The quotation below is a typical example showing that adolescents need to report to parents even when they stop using mobile telephone,

Respondent #6: It is very troublesome after using mobile telephone. When I have mobile telephone, I would call my mom or she calls me after school everyday. During the period when I have no phone to use, I need to call her at telephone booth after school! But I don't need to do that at all before having mobile telephone. But I need to do that once I have it. (...) She calls me immediately when I walk to the train station after school. And she says, "Where are you? Are you coming back?" So what can I do? She calls me immediately before I call her! It's so convenient for her to contact me. And she continues, "What are you doing? When will you come back?" and so on...

(Respondent #6, female, 17 years old)

The above quotation suggests that mobile telephone increases the possibility of adolescents to be contacted by parents. She had to report to parents in telephone booth even though she had lost her mobile telephone. She mentioned that daily reporting to parents is required only after using mobile telephone.

Some adolescents even mentioned that mobile telephone symbolically implies that adolescents need to report to parents.

Interviewer: What do you think about reporting to parents?

Respondent #3: Actually you need to do that once you have the phone...you

know that you should make a phone call to home at times.
(Respondent #3, female, 16 years old)

The above quotation best illustrates that mobile telephone *symbolically implies* that adolescents need to report to parents once they have the phone.

The symbolic implication of reporting also reveals that the act of reporting is internalized. Adolescents agree that it is their responsibility to report to parents. The act of reporting has already becoming a part of their everyday life practice.

Interviewer: Are you required by parents to call back?
Respondent #5: No. We have consensus.
(Respondent #5, male, 17 years old)

Interviewer: Are you required by parents to call back?
Respondent #17: No. It's my habit to call them.
Interviewer: They do not require you to do so...
Respondent #17: No, they don't.
(Respondent #17, male, 19 years old)

Thus, reporting to parents becomes an everyday life practice of adolescents. Mobile telephone is incorporated into adolescents' everyday lives. Adolescents are either required by parents to report, or actively report to parents. Reporting becomes a part of family routines, which shows the respect and responsibility of adolescents to other family members.

Although the above analysis illustrates that most adolescents have to inform parents their whereabouts through mobile telephone (either portrayed as external control by parents or internal control by adolescents), adolescents are not passively obeying the rules in practice. Our data reveals that reporting, which is perceived as a conforming act, can be perceived as an active strategy to negotiate freedom and autonomy. I argue that if the act of reporting is perceived as a conforming behavior,

adolescents are only passive recipients of parental power. However, our data illustrates the dynamic nature of parent-adolescent relationships. It is through the continuous negotiation of meaning of mobile telephone (as well as reporting) that adolescents' voluntaristic nature is articulated.

6.1.2a Reporting as a Strategy to Negotiate Autonomy

Although I have suggested that adolescents have negative perception on reporting, our data also indicates that adolescents are not passively avoiding parents' calls.

Interviewer: Do you report to parents?

Respondent #11: Occasionally. I call them most of the time, because I don't want them to call me.

(Respondent #11, male, 18 years old)

The above quotation illustrates that adolescents make clear differentiation between active and passive reporting. Adolescents choose to take the initiatives to report to parents rather than passively wait for parents' calls. Even though it is a fact that reporting is the outcome of parental authority, adolescents are able to transform their role from a passive to an active one.

The advantage of adolescents' initiation of calls is that they are able to construct a positive self-image -- they are competent mobile telephone users and responsible children. Thus, they can obtain advantages in negotiating more freedom and autonomy.

On the other hand, the interview data also indicate that adolescents understand parents' intentions. If adolescents interpret the urge of parents as a kind of caring, they would show their willingness to report.

- Respondent #6: I understand something from the experience of using mobile telephone. I discover that when mother calls and asks your whereabouts, all you need to do is to answer all questions thoroughly. And she would end the call with gratified feeling. As far as they know that you are trying to answer, that's enough. That is, don't try to save such a little time. It means to comfort them. But I observe that many people don't put any effort to tell parents, such as saying, "Don't disturb me". That's the cause of conflict. Even though you are not answering with heart and soul, they still feel satisfied when you answer them. Even though you are not at that place actually, they still feel relieved. Even though you are telling lies, your willingness to answer is enough.
- Respondent #8: Yes. Don't let them worry about you is enough.

The above quotation shows that adolescents understand the worrying feelings of parents. They believe that the act of making calls to parents can relieve parents' uncertain feelings. The key point is that taking the initiatives to report shows their understanding of parents' worries. Even though adolescents have negative perception on reporting, it is only due to the highly repeated nature of the calls. They are not denying the good intention of parents regarding the reporting issue.

Moreover, mobile telephone can be served as a communication device which facilitates a more flexible negotiation process between adolescents and parents.

Respondent #10 mentioned that mobile telephone helps him managing social activities.

- Respondent #10: It (reporting) is not a bad thing. The good side is that I can delay the time of returning home. I tell them the time I will return, so they don't need to wait for me.

(Respondent #10, male, 18 years old)

From parents' point of view, adolescents' report provides information to them.

Parents can know the situation of adolescents. From adolescents' point of view, they are able to have a more flexible arrangement of their social activities. A more immediate and flexible negotiation process becomes possible since adolescents can negotiate with parents through mobile telephone on the spot, rather than making compromise before they are going out.

6.1.3 Reporting as a Complex of Care and Control

I suggest that reporting is a mixture of care and control. Some adolescent respondents perceive parents' urge to report as a kind of caring.

Respondent #8: It depends on the manner, whether it is caring or scolding.

Interviewer: Which type is more, caring or scolding?

Respondent #8: Caring. And I feel more comfortable. I'm so afraid that they scold me.

(Respondent #8, female, 16 years old)

From parents' point of view, they use mobile telephone to exert certain degree of control over adolescents' social activities. At the same time, they attempt to show their caring to adolescents. Through the operation of both caring and control, mobile telephone is integrated into the routines of adolescents' everyday lives. Thus, caring and control are the two sides of the same coin. The meaning of "control" is not solely based on the degree of exerting actual control. Rather, it is portrayed as a complex of caring and control. Parents express their care to adolescents by knowing their whereabouts. The aim is to ensure that everything is all right and under their expectations. Through the process of information collection, they have knowledge about their offspring. At the same time, parents are able to exert remote control over adolescents' social activities, even though the monitoring is indirect. The ability to control is not in terms of whether parents can

have actual control over adolescents' social behaviors, but in the sense that parents are able to connect with their offspring and express their feelings at any occasions. Thus, the boundary of caring and control cannot be easily differentiated. As mentioned by adolescent respondent #9, the definition of control depends,

Respondent #9: It depends on the definition of control. If they have enquiries, it is a kind of caring.

(Respondent #9, male, 16 years old)

Even though adolescents tend to perceive parents' call as annoying, they do not interpret it as a kind of coercive power. Some adolescent respondents perceive it as a kind of caring. Indeed, adolescents also want to maintain intimate relations with their parents.

Interviewer: Do you think mobile telephone have certain effects on intergenerational relationships?

Respondent #14: Yes. We talk more.

Respondent #13: They know more about me.

Interviewer: What do you feel?

Respondent #13 and 1#14: That's good.

Thus, adolescents also want to maintain a close relationship with parents. Mobile telephone calls are perceived as a kind of emotional expression, which have important functions in maintaining family cohesion. Mobile telephone calls symbolically confirm family sense of belonging. It is not very necessary to share deep feelings through mobile telephone. The importance of calls is its symbolic sense, in which the act of "connection" represents a certain kind of closeness among family members. Even though the contents of mobile calls are trifling, the symbolic sense of being connected is indeed more important.

6.1.3a Rethinking the Meaning of Control

Some researchers suggested that adolescents' mobile telephone use might generate new problems in controlling adolescents' social behaviors. For instance, it is suggested that the possibility of adolescents to tell lies increased since parental control is no longer guaranteed through the remote conversations on the mobile telephone. Parents can only give advice and restriction verbally, and it is impossible for parents to have actual control over adolescents' social behaviors and relations. Others suggested that parents could no longer let the home telephone to perform gate-keeping function since mobile telephone is an individualized communication device. However, I argue that whether parents can have actual control over adolescents is not the main consideration. On the contrary, both adolescents and parents can achieve a higher sense of control through the use of mobile telephone.

From parents' point of view, adolescents' use of mobile telephone facilitates family communication and remote parenting. Parents' sense of control is developed through collecting information about adolescents' social activities. Parents' desire to control can be satisfied through the remote communications. They believe that mobile telephone helps them to know more about their children's social activities, even though they never know that the information provided by their offspring is true or not. In fact, both parents and adolescents claim that family relationship is based on mutual trust. Their main concern is that adolescents are willing to answer. Indeed, parents are able to contact with adolescents in a more flexible manner. Parents' sense of control refers to their ability to ensure that everything runs smoothly under their expectations. Mobile telephone can be served as a device helping them to collect information.

From adolescents' point of view, control is a sense of mastery of the device. Adolescents need to ensure that they are able to manage their interpersonal communications. Such management can be achieved by using mobile technology. They believe that they are competent in using the device. Such kind of control feeling is further facilitated by the functions provided by mobile telephone. They claim that they are able to control the device as well as interpersonal boundaries by advocating that they are able to decide to receive or end the calls.

Although it is believed that mobile telephone enables parents to exert more control and surveillance on adolescents' behaviors and social networks, it is only a part of the story. The findings show that adolescents make use of mobile telephone to manage their interpersonal communications. They perceive that they are the masters of the device. They believe that they are indeed gaining more autonomy compared with the time when they have no mobile telephone.

Thus, mobile telephone is a communication device, which is perceived by both adolescents and parents as advantageous in managing their everyday lives and interpersonal communications.

In this respect, it is discovered that both adolescents and parents use mobile telephone to construct their family roles. Adolescents use mobile telephone to perform their family role as "responsible children", so that they are able to gain more power and control in the negotiation process. On the other hand, parents claim that purchasing mobile telephone for their offspring has good intention showing their concern and care about their offspring, so that the image of "good parents" is constructed.

6.2 Mobile Telephone and Boundary Control

6.2.1 Control of Information Input and Output

Another tactic used by adolescents to gain more autonomy is to withhold information. They control information output to protect privacy and maintain a suitable family boundary. Adolescents' information control is closely related to the caller identification (caller ID) function.

Adolescents are able to decide whether they answer the phone calls or not at the time when they see the display of phone numbers on the screen. In general, adolescents have positive feelings towards this function.

Respondent #7: I can have psychological preparation. If parents urge me to return home, then I would become frustrated.

Respondent #9: It's important when you start your conversation. When the one on the other side is a stranger, you would speak politely. When he or she is your friend, you would speak very friendly and energetically. The manner is different. Because you know who is calling, you can have preparation.

Respondent#5: Caller ID is important. It is very strange if you receive an anonymous call. When you know who calls you, it's very happy.

Interviewer: That is...

Respondent #5: That is you can glance the phone number. If it is 'good', you can answer the call.

The above quotations illustrate that the caller ID function enables adolescents to have preparation and expectation before receiving the calls. Thus, caller ID function generates the feeling of control – the sense of mastery. Through the display of number on the screen, adolescents can choose to answer or not to answer the phone calls. For instance, they can move to a suitable location to answer the call after glancing the phone number, or manage their emotional state before

receiving the phone calls.

Since the caller ID function provides information of the callers, most of the adolescent respondents mention that they are able to avoid parents' calls without further punishment. As mentioned before, some adolescents feel annoying when they receive parents' calls. They claim that they can have preparation when they notice that parents' call them,

- Respondent #11: Caller ID is a very important function. You can choose to answer or not answer the calls according to your preference.
- Respondent #10: It's better not to receive mother's calls
- Respondent #11: But you better not to cut them off. Or pretend not being heard.
- Respondent #12: Tell them that I've turned on the vibrate mode and put it in the bag.

Indeed, adolescents understand that even though they do not want to be contacted by parents in some circumstances, they cannot cut them off.

- Respondent #6: If I cut them off, they will probably scold me. But once they call me, I can turn off the ring tone and let it vibrate, and it's not my business at all!

"I can't hear the ring", "I've put the phone in the bag", "The network is poor", "I've turned it to the vibrate mode", "The battery is running out", "Excess quota" are the most commonly used excuses by adolescents for not answering parents' phone calls. Caller ID function is an important mobile telephone function to avoid receiving such calls.

6.2.2 Reserve the Contents of Mobile Telephone Conversations

Many adolescent respondents mentioned that they want to have private

conversation free from the interference of other family members. Almost all adolescent respondents feel uncomfortable when the phone conversations has been heard by parents and siblings,

Interviewer: Do they listen to your phone conversations?

Respondent #3: They sit around me when I talk on the phone. They always act like that. They leave immediately when I end the calls.

Interviewer: What do you feel?

Respondent #3: I would put down my voice immediately. And avoid certain topics.

(Respondent #3, female, 16 years old)

Adolescent respondent #3 mentioned that parents try to listen to the conversations by sitting around her. Respondent #24 claimed that parents would use other phone lines to listen to their conversations. Even though they have coreless phone at home, it is still possible to be overheard by other family members.

Respondent #24: They listen through another phone line.

Interviewer: What's your feeling?

Respondent #24: They are not respecting my privacy at all. That's very bad.

(Respondent #24, female, 11 years old)

Most of the adolescents mentioned that they have negative feeling towards parents' listening to their mobile conversations.

Respondent #6: I must keep a distance from my mother when I'm talking on the phone because she disturbs me. It's very troublesome.

She gives opinions like, 'Why do you behave so boy-like?'

Respondent #8: Yes! She says, 'Why are you so open? You're only Form 5 student, don't talk such things'.

Respondent #6: I don't like her disturbances.

Adolescents' negative feeling is generated by the parental intrusion of their

interpersonal boundaries. When they are talking with friends on the phone, parents try to join their discussions. Thus, parents' disturbances are perceived as a kind of unwanted interactions.

Adolescents employ various strategies to protect their privacy. For instance, they would bring the home telephone to their own bedrooms to reduce the possibility of being overheard through other telephone lines.

Respondent #4: I take all the phones to my bedroom.

Interviewer: How?

Respondent #4: Taking all the phones, including the cordless phone.

Interviewer: Why do you do that?

Respondent #4: To avoid being overheard by others.

(Respondent #4, male, 16 years old)

Adolescents believe that mobile telephone can reduce the problem of being overheard. The portable nature of mobile telephone allows them to protect their privacy. Respondent #3 mentioned that it enables her to make phone calls outside so that parents cannot listen to her conversations.

Interviewer: What happen after using mobile telephone?

Respondent #3: It's much better. I can choose to make calls on the street.

That's true!

(Respondent #3, female, 16 years old)

Further, mobile telephone avoids secret listening through other telephone lines at home,

Respondent #4: I like mobile telephone. The conversations would not be heard by others secretly through other phone lines.

Interviewer: Which communication device do you like most?

Respondent #24: Mobile telephone. Maybe it's because of privacy. Parents

can't overhear. They can't hear the conversation when I use mobile telephone.

Thus, mobile telephone provides an individualized telephone line to adolescents, so that they are able to maintain a more private conversation, at least greatly avoid the chance of being overheard by others through other telephone lines.

However, adolescents' ability to protect the content of conversations also depends on the household space, especially whether adolescents have their own bedrooms. For instance, respondent #6 noted that she does not have her own bedroom. She needs to share a common space with other family members. As long as she talks on the phone (both over the home telephone and the mobile telephone), her mother still has the chance to interrupt her conversations. It implies that even though the individualized and portable nature of mobile telephone provides new opportunities for adolescents to manage their mobile telephone conversations, it is constrained by the actual context of mobile telephone use. As it is mentioned in the case of respondent #6 that, even though she has mobile telephone, she is still under constant interference of her mother as long as she uses the telephone at home.

Thus, the new functional capacities of mobile telephone are still constrained by the actual context of use. The interviews illustrate that adolescents prefer using telephone at their own bedrooms, which shows the importance of bedroom as a private space. Although the portable nature of mobile telephone provides opportunities for adolescents to make interpersonal contact in a relatively private manner, it should not be overemphasized since the use of mobile telephone is also embedded within the family context.

6.3 Concluding Remarks

At one level, this chapter illustrates the parent-adolescent negotiation process regarding the use of mobile telephone (e.g. the issue of reporting). However, such negotiations implicitly reflect the negotiation of family relationships and adolescents' autonomy. Mobile telephone is not solely a remote communication device. Rather, adolescents actively use mobile telephone to manipulate their interpersonal boundary and maintain desired interpersonal relationships.

This chapter illustrates that mobile telephone is the arena of continuous negotiation of family relationships. In general, adolescents desire to have more freedom and control over their lives. They concern making decisions without parents' interference. However, it does not mean that they want to detach from parents. They only want to renegotiate their family roles and relationships. Through the process of negotiation for freedom and autonomy, adolescents engage in the process of identity formation. Adolescents gain a sense of control and independence through the organization of activities and social interactions without direct supervision from adults. It is through this process that adolescents construct their conception of self and identity.

Apart from the identity construction process, this chapter also discusses the reporting issue regarding adolescents' use of mobile telephone. The findings suggest that the meaning of "control" should not be limited to coercive power and control. It is not necessarily a top-down control. The data clearly reveal that adolescents have self-control over their mobile telephone use. They believe that it is their responsibility to report to parents. Moreover, the data illustrate that it is better to understand the dynamic of power in a relational and interactive sense¹⁷.

¹⁷ The concept of relational power was suggested by Foucault (1977), see *Discipline and Punish*.

The operation of power is articulated through the continuous process of social interaction and negotiation. For instance, reporting can be interpreted as a conforming behavior, or as a strategy to search for more freedom and autonomy. The act of self-disclosure by adolescents can be served as a strategy to transform the role of adolescents from passive to active.

Moreover, the empirical data suggest that the feeling of control should be located under the pre-existing pattern of family communication. Previous studies only base on the assumption that mobile technology creates new possibilities of parental monitoring and surveillance. However, they ignore the actual context of mobile telephone use and the micro social process of social interactions. Indeed, respondents suggested that even though mobile telephone facilitates remote reporting, adolescents are still required to seek approvals from parents regarding their social activities, which is actually a pre-existing family practice. Adolescents are required to inform parents about their social activities in advance to get permissions.

Respondent #2: They would ask all the related stuff before we go out.

Interviewer: That means they know about your social activities...

Respondent #5: We get their permissions before going out.

Thus, even though adolescents' reporting may become more frequent with the use of mobile telephone, it is only a part of the existing parental practices regarding parental control of adolescents' social activities. In this respect, adolescents' use of mobile telephone is embedded within the family routines. The data suggest that mobile telephone can both facilitate new kinds of parental control and surveillance over adolescents' social activities, as well as enhance adolescents' control over their interpersonal boundaries and autonomy.

In sum, this chapter analyzes the complex process of family negotiation in

relation to the use of mobile telephone, which implies the renegotiation of parent-adolescent relation and boundary. It should be noted that the importance of family power structure in constraining adolescents' use of mobile telephone should not be overlooked. However, adolescents show their agencies in controlling family boundary in which technology takes a part (e.g. the importance of caller ID function). Adolescents' reporting to parents, which can be interpreted as a passive conforming to parental power, can also be interpreted as a strategy to gain more bargaining power in the process of autonomy negotiation (which can be operated consciously or unconsciously). Adolescents' agency is partly attributed to the functions capacities of mobile technology, but the power of technology is also embedded in the family dynamics, especially the existing context of intergenerational relationships.

CHAPTER 7 — Mobile Telephone and Peer Culture:

Mobile Telephone and Construction of Identity

This chapter illustrates the last phase of domestication of mobile telephone: conversion. Silverstone et al. (1992) suggested that the conversion of information and communication technologies is an indication of membership and social competence in public place (p. 26). In chapter five and six, I have described and analyzed the micro social process of mobile telephone use in relation to family relationship. However, mobile telephone is not only a device for family communication, but also a social object having its social and symbolic meaning when it is used in the public. Thus, adolescents' use of mobile telephone is not only a part of the family structure, but also extends into the public life (p.26). In this respect, the study of adolescents' use of mobile telephone should not be limited to its family context. In this chapter, adolescents' mobile telephone use is located within their peer group culture. I argue that adolescents actively use mobile telephone to develop their sense of identity within the peer group context. Specifically, mobile telephone use with peer groups is closely related to the school environment. Thus, the school is an important part of their structural context of mobile telephone use.

It is suggested that mobile telephone is used and shared in the immediate context of use (Weilenmann and Larsson 2002: 92). Mobile telephone is not solely a personalized communication device used to communicate with people in the distance. It is also a tool for local social interaction (Weilenmann and Larsson 2002: 92-93). Thus, mobile telephone is not a private device. It is a shared object in its local context of use. I am going to illustrate various kinds of local sharing of mobile telephone within the peer group culture. Most of the data were obtained

from the adolescents' focus group interviews. Some of the sharing experiences were observed in the group interview context.

7.1 Mobile Telephone as a Shared Object: The Culture of Sharing

The focus group interviews reveal that mobile telephone is shared among peer group social network. Mobile telephone is a collective resource which is used and shared among friendship network.

7.1.1 Sharing the Handset

The data illustrate that mobile telephone use can be a collective activity in the immediate context of social interaction. Various kinds of mobile telephone sharing behavior can be observed during the focus group interviews. Most often, it involves the sharing of handset among friendship network. One of the most common types of sharing is game playing.

7.1.2 Game Playing as a Collective Experience

There are different kinds of games installed in the mobile telephone. Adolescents choose to play mobile telephone games together. I observe that playing games is a collective activity in adolescents' peer culture. Since the types of mobile telephone games vary according to different brands and models, it is common that adolescents exchange their mobile telephone in order to try different games.

In the focus group interview #2, respondent #9 recently bought a new mobile telephone. There are some new games installed in his handset. So he shares his phone with other adolescent respondents. Adolescents gather around the player and

comment on his performance, showing their interest towards the games as well as the handset. Furthermore, they share the experiences of playing games. For instance, they exchange the hints of playing. In this respect, mobile telephone is a source of entertainment and enjoyment. Mobile telephone is not solely a device for remote communication. It is also a part of adolescents' leisure life performed in the immediate context of mobile telephone use.

The above example clearly illustrates that mobile telephone is an important source of common topics. They discuss the handset, the models, the functions, and the games. During the focus group interviews, adolescent respondents have frequent interactions in relation to mobile telephone¹⁸.

7.1.3 Share the Handset with Non-Owners

Adolescents also share mobile telephone with non-owners, since not all adolescents have their own handset. However, even though some adolescent respondents do not have mobile telephone, they are indeed familiar with the use of mobile telephone, because they have learned how to use the handsets by borrowing the phones from their friends and relatives. For instance, adolescent respondent #23 has no mobile telephone, but she has experience in using mobile telephone. She mentioned that when she wants to make phone calls, she would borrow a phone from parents or friends.

¹⁸ During the focus group interviews, I frequently observed that when an adolescent respondent answered my questions, other respondents might chat with each other, including discussions on the handset. Moreover, since most of the focus group interviews were conducted in their existing communities (e.g. school and church), some of the friends of respondents would gather around during our focus group interviews. In our focus group interview 2, there were adolescents (which were not respondents) who borrowed the handset from our respondents to play games, showing that sharing the handset is a common social practice among adolescents.

7.1.4 Share the Handset with Peer Group Members

Mobile telephone can be served as a collective resource shared among members of the same peer group. Sharing the handset is a common practice in the peer group culture. Adolescents believe that mobile telephone is not totally a personal belonging, but a shared object.

- Interviewer: Do you mind giving the handset to others to have a look?
- Respondent #8: I don't mind. It depends on their intentions.
- Respondent #6: I think it's OK. I would see whether there is any important private information that cannot be disclosed. I like to send messages. If there are secret messages, I would not give the phone to them.
- Respondent #7: My friends often take my phone to play games. I don't mind.
- Respondent #8: They think that my handset is cute. So they just want to have a look. They won't press the key.
- Interviewer: If others press the keys and read the information, what do you feel?
- Respondent #9: It depends. If someone read my phone book or messages...because it is not only my own privacy, but also others'.
- Respondent #7: Mobile telephone is not totally a personal belonging.

The above quotation illustrates that exchanging mobile telephone in the peer group culture is a common practice. Their handsets are open for sharing as long as others do not invade their privacy by reading the information inside the handset. As adolescent respondent #7 mentioned that mobile telephone is not totally a personal belonging, mobile telephone is not solely an individualized communication device. Unless others attempt to obtain the private information (phone numbers or SMS messages for instance), sharing mobile telephone is welcomed.

7.2 Using Mobile Telephone at School as a Part of Adolescents'

Mobile Telephone Culture

Most of the secondary schools in Hong Kong have rules to restrict students' use of mobile telephone at school. It is probably based on the assumption that bringing mobile telephone to school exposes it to greater danger of being stolen or lost. Of course it is also related to the potential interruption of mobile telephone calls during the lessons. Different schools have various degrees of restriction. At some schools, bringing the handset to school is prohibited. Others allow students to bring mobile telephones to school with teacher's permission. Some of the schools allow students to bring along their mobile telephone, but using mobile telephone in school area is banned. On the other hand, some schools have no restriction at all.

Adolescent respondents mentioned that it is common to break the school regulations regarding the use of mobile telephone. Most of them bring their mobile telephones to school secretly. For instance, adolescent respondents of focus group #1 and #2 mentioned that they bring mobile telephones to school without seeking official approval. They noted that the rules that regarding the restriction of bringing handset are not strictly enforced by the teachers.

Since using mobile telephone in school is restricted, adolescents have developed various tactics to resist institutional rules. One of the most common practices is sending SMS messages in school, since they can communicate with others without making sound, which are less likely to be discovered by teachers. However, due to the relatively high cost of sending SMS messages in Hong Kong, adolescents noted that making mobile phone calls is still the most common practice. Another common practice is to use mobile telephone in private spaces such as the school toilets. Adolescent respondent #9 mentioned that going to the toilet during lesson is

a common excuse used to make phone calls at school.

Thus, breaking rules can also be served a collective experience in the school setting. Most of the adolescent respondents mentioned that they have the experience of using mobile telephone in school area, even though it is prohibited. Indeed, one of the major components of adolescents' social network is schoolmate. Interestingly, they still prefer making phone calls or sending SMS messages at school. One possible reason is that they can share information and feelings immediately at school, especially during the lessons.

7.3 Mobile Telephone Use and Friendship Network

7.3.1 Exchange Mobile Telephone Number: Extension of Friendship Network

Adolescent respondents mentioned that they prefer exchanging mobile telephone numbers with new friends in their first meeting. They enter the phone numbers directly to their phone books. Exchanging mobile telephone numbers becomes a ritual among adolescents' peer group culture. Since they prefer exchanging mobile telephone numbers rather than other kinds of communication means, mobile telephone becomes an important communication tool in exploring new social relationships. Thus, mobile telephone is an important communication device to establish new friendship network. In this respect, the phone book also symbolizes their sociability, which is part of adolescents' self-definition: the phone book is the map of their social networks.

7.3.2 Maintenance of Peer Group Relationships

Sharing is a confirmation of friendship. Mobile telephone communication

among peer groups enhances their intimacy and sense of group belonging. Mobile telephone can be used at any occasion, which facilitates peer group communication and enhances the maintenance of friendship more readily.

It is interesting that even though adolescents spend a significant amount of time with each other at school during the daytime, they still like to talk on mobile telephone. The contents of conversations include various matters in life, usually without strong practical needs. Most parents perceive such kinds of chatting as a waste of time. Yet, it is served as an important function among adolescents since they are connected through the use of mobile telephone. They use mobile telephone to maintain their social interactions, to arrange meetings, relieve boredom, share personal feelings, exchange information, or search for support.

Mobile telephone extends the possibility for adolescents to initiate social interactions when they are on the move. Thus, mobile telephone is an important communication device which helps adolescents to establish and maintain friendship networks.

7.3.3 Sharing Emotions

As mentioned in the previous chapters, adolescents have greater degree of expressive use of mobile telephone. The data indicate that mobile telephone is an important communication device for adolescents to share their emotional experiences.

Respondent #8: I called my friends and cried. I shared my feelings with them. The whole conversion was just crying continuously. And they listened to me. It's quite often.

Most of the adolescent respondents have experiences in using mobile telephone

to share personal feelings with others (usually with friends). Even though some adolescent respondents (usually light users) mentioned that they mainly use mobile telephone for instrumental purposes, they also have experiences in listening to the emotional problems and frustrations of friends. Thus, mobile telephone is an important communication device to express their emotions, which can be served as an emotional coping mechanism in relieving negative feelings. Expressive use of mobile telephone indicates that peers serve as an important source of advice and sharing in dealing with emotional problems. It is through this process that adolescents identify with the peer group.

7.3.4 A Sense of Sameness: Using the Same Network Services

Adolescents maintain the sense of sameness through the use of mobile telephone. Adolescents prefer using the same network service with their friends. They compromise the network used among peer group members, since they can obtain certain amount of free time units and save money.

Respondent #5: I use the same network service with my friends, because it's cheaper to use the same network.

Apart from the intention of saving money, using the same network service implies that they belong to the same group. The term “New World Circle” (自己人時間) or “heart to heart” (心連心) also implies the membership of the group.

7.4 Display of Mobile Telephone among Peer Social Network

Adolescents use mobile telephone to construct their social status within the peer groups. Adolescent respondents suggested that before mobile telephone becomes a popular communication device, they perceive that owning mobile telephone is a kind

of status symbol. Some experienced users (using mobile telephone more than four to five years) have experienced the rise of status with the use of mobile telephone. They mentioned that at the time when they started to use mobile telephone, owning mobile telephone was a sign of status. They perceived themselves as more superior among the peer group due to their mobile telephone ownerships. As mobile telephone has been commonly used among adolescents, such symbolic meaning of mobile telephone diminished. Mobile telephone becomes an everyday tool for communication and organization of social activities. Thus, the social status is not the issue of having or not having it, since almost everyone have mobile telephone. The status symbol is reflected by the brand or model of the phone.

The symbolic dimension of mobile telephone is illustrated by the observation in focus group interviews. The adolescents believe that it is more desirable to be a fashionable user, although they claim that they are not the kind of person who concern about fashion¹⁹. The focus group interviews clearly illustrate their preferences. In the focus group interview #1, adolescent respondent #2 was teased by other respondents because she has an old and malfunctioned mobile telephone. When they were asked to show and introduce their mobile telephones to the researcher, she was shy of showing the phone among her friends. She felt a bit embarrassed, and said that her phone was out of order and refused to take it out.

In the focus group interview #2, respondent #9 had recently bought a new phone, so he was glad to show his phone proudly. His mobile telephone was the focus of the discussion. During the interview, other respondents borrowed his handset to have a look, and discussed the functions and designs of it. In another focus group,

¹⁹ But it should be noted that not all adolescents like to be trendy. Some of the adolescents believe that it is not necessary to have the newest model.

respondents also expressed their preferences of new models. They refused to show their handsets if they were old and unfashionable. In contrast, they liked to share the handsets with others if they were new.

Respondent #10: I don't mind giving the handset to others to have a look if the phone looks fashionable. I don't bring it out if it is ugly.
(Laughs)

Apart from preferring new models, adolescents also like to personalize their mobile telephones to show their own taste and style, which is the part of identity construction. For instance, they download hit songs as their ring tones, decorate their mobile telephones, or replace the faceplates to make the phone more aesthetic and special. The aesthetic outlook of mobile telephone symbolizes an adolescent's personal style, which involves the choice of model and the ways of displaying and personalizing the phone.

The above examples clearly illustrate that mobile telephone is an indication of self-image and identity. Mobile telephone serves as a means of expressing one's personal style. Through the display of mobile telephones among peer groups, adolescents actively construct their images and group statuses within their friendship networks. Thus, the display and personalization of mobile telephone plays a part of identity formation, which indicates adolescents' active use of mobile telephone.

7.5 Concluding Remarks

This chapter suggests that mobile telephone is displayed symbolically within the peer group social network. Mobile telephone symbolizes a sense of "being connected". Collective use of mobile telephone facilitates adolescents' sense of unity: they belong to the same social group.

The conversion of mobile telephone is an indication of membership and competence in peer culture. As Silverstone et al. (1992) suggested that the conversion of technology is particularly significant for adolescents (p.26), the findings suggest that adolescents use their mobile telephone as a means to enter into peer group culture. The sharing of mobile telephone, the exchange of games, and the conversations about mobile telephone, can be served as a mechanism for adolescents to become a member of a peer group. At the same time, the means and patterns of communication of peer group is reconstructed through the use and display of mobile technology. Various collective usages of mobile telephone indicate that the use of mobile telephone becomes a part of the peer group culture.

This chapter also describes the process of adolescents' engaging in the construction of identity in relation to the use of mobile telephone. Through the social use of mobile telephone in the peer group social context, adolescents construct their group identities. Thus, adolescents use mobile telephone to construct their self identity through differentiate oneself from others (particularly differentiate oneself from family) as well as connect oneself to others (particularly connect oneself to peers) (Livingstone 1992: 121).

Thus, mobile telephone can be served as adolescents' common ground of peer group identification. It is through this process that adolescents construct their identities. In this respect, mobile telephone becomes an indispensable part of adolescents' everyday life.

CHAPTER 8 — Conclusion

This study contextualizes adolescents' mobile telephone uses under the context of various social interactions including family relations and peer group social networks. The present study is located within the academic discourse of the interrelations of individual, technology and society. In this respect, mobile telephone is grasped by its material, social and symbolic terms. It is material in terms of its functional and technological capacities. It is social in terms of its embedded context of use. It is symbolic in terms of users' active construction and definition of the meaning of mobile technology.

The empirical data describe the micro social processes in which adolescents actively make use of mobile technology in various social contexts. In a theoretical sense, this study attempts to move away from the over-simplistic notions of the previous ICTs studies. I attempt to avoid any kinds of deterministic and unidirectional understandings of the micro social processes of the use of the technology. Specifically, I suggest that the material nature of the technology (mobile telephone), its contexts of use (family and peer group relations), and the voluntaristic nature of users (adolescents' agency) are interrelated in the process of social use of the technology.

As it is suggested in the chapter of literature review, previous ICTs research works have the tendency towards deterministic and unidirectional analyses. Some scholars emphasize the technological nature of mobile telephone in determining the use, which identify technology as a key factor in generating social changes. Others emphasize that adolescents' use of mobile telephone is the product of the structure of social relationships, which over-emphasizes the structural forces in constraining the

use of ICTs. Some celebrate adolescents' agency, which over-stresses the volunteeristic nature of individuals without locating the users within the context of social actions. I argue that they oversimplify the diversity and complexity of adolescents' relations with mobile telephone. We should avoid examining the use of mobile technology in a deterministic and unidirectional manner. Instead, I attempt to offer a more complex sense of causality by capturing the process of interaction and negotiation of the use of mobile telephone.

I suggest that we can only achieve a comprehensive understanding of adolescents' use of mobile telephone by considering the complex interplay of the communication technology, the context of social relationships, and adolescents' agency. Contrary to the notion that the very nature of technology determines how mobile telephone is actually used, as well as comparing the relative importance of social forces and individuals' agency, this study emphasizes the interplay of these factors in the process of adolescents' use of mobile telephone. Thus, I avoid making any unequivocal conclusion regarding the social use of mobile telephone, but highlight the ambiguous nature of the subject matter.

At the end of this chapter, I will pinpoint some major limitations in this study, and suggest some possible routes of further research works on mobile telephone.

8.1 Summary of Findings

8.1.1 Adolescents as a Heterogeneous Group of Mobile Telephone Users

First, adolescents are not a homogeneous social group in the use of mobile telephone. On the contrary, our empirical findings suggest that adolescents creatively use mobile telephone in various ways. Different patterns of use can be identified. For instance, mobile telephone can be used for instrumental purposes.

On the other hand, some adolescents prefer using mobile telephone to express their personal feelings. Different kinds of usage are not mutually exclusive in the sense that adolescents have various patterns of use in different social situations. Thus, through the diverse use of mobile telephone, adolescents show their competence in using the device. Most obviously, adolescents use mobile telephone to control their interpersonal boundaries in order to manage suitable intergeneration relationships. It is through this process that adolescents construct their identity by using mobile telephone as a communication device for controlling interpersonal boundary as well as gaining freedom and autonomy through the continuous process of negotiation.

8.1.2 The Meaning of Control

The findings also suggest that we have to rethink the meaning of control in the use of mobile telephone, which is clearly illustrated in the discussion on reporting in chapter six. From parents' point of view, purchasing mobile telephone for adolescents is based on their desire to know more about their offspring. However, such kind of parental control is not exerted in a coercive manner. Mobile telephone is perceived by parents as an additional means to collect information about their offspring in order to ensure that everything runs smoothly and under their expectations. Thus, the meaning of "control" is not necessarily a coercive one. Instead, parents gain a sense of "control" by remote communication, in which parents are able to ensure that they can contact their offspring at any time and place if necessary.

It must be noted that I am not trying to conclude that mobile telephone facilitates parental control. Instead, I only attempt to illustrate some possible applications of using mobile telephone. Indeed, adolescents are not passively

accepting the rules exerted by parents. Rather, they actively use mobile telephone to gain more control over their social activities and interpersonal relationships, which should be grasped within the actual context of use. The findings suggest that adolescents conform to parents' expectation of using mobile telephone is not simply a passive response to parental control. Rather, adolescents' use of mobile telephone to report their whereabouts can be perceived as an active strategy, which demonstrates the competence of adolescents in using mobile telephone and enhances their ability to negotiate for more freedom and autonomy.

Thus, both adolescents and parents have positive perceptions towards mobile telephone. Previous studies of mobile telephone either pinpoint the power of parental control in constraining adolescents' mobile telephone use, or emphasize adolescents' agency by disregarding the actual context of use. The present study attempt to illustrate that family power structure and adolescents' agency shapes each other. They should not be interpreted in a unidirectional manner. Adolescents, mobile telephone, and the context of use are interrelated.

8.1.3 Adolescents' Identity Construction

The findings also illustrate that mobile telephone plays a crucial role in adolescents' identity construction. Adolescents negotiate their identities through the use of mobile telephone in different social contexts. First, adolescents attempt to gain more freedom from their parents through continuous family negotiations regarding the use of mobile telephone and social activities. At the same time, they attempt to show their competence in using mobile telephone to their peer groups through the collective use and social display of mobile telephone. The processes of family negotiation of mobile telephone use as well as the social use of mobile

telephone within the friendship network symbolically imply adolescents' active identity construction processes.

8.2 Rethinking the Relations between Mobile Technology, Individual Agency, and the Context of Use

This study suggests that the previous studies of ICTs oversimplify the complex process of the use of the technology. The structure, agency and technology are combined to exert influences and changes. The nature of mobile technology undergoes the process of meaning construction by the users, which is embedded in their situated social context. Further, adolescents are neither the products of their situated social relationships (the notion of passive recipients), nor the producers of the meaning of mobile technology (the notion of free-floated active users). Instead, the agency of users should be understood within the complex interplay of technology, structure and agency. Thus, it is crucial to integrate different but interrelated factors in the analysis of ICTs use.

First, it should be noted that the nature of the technology is ambiguous, since the meaning of the technology is not solely defined by its functional capacities. Instead, the meaning of the technology is continuously constructed by the users through the complex interplay of individuals and its context of use. The empirical data suggest that adolescents and parents actively construct the meaning of mobile telephone early in the stage of purchasing. They have their own understandings and perceptions of mobile technology. And they use mobile telephone in a variety of ways according to their different definitions and perceptions of mobile telephone.

Second, the context of mobile telephone use should not be overlooked. Adolescents' use of mobile telephone has to be seen as socially grounded. It is

located within the context of social interactions, since mobile telephone use is a social process. It is through this process that the meaning of mobile telephone and social identity is constructed. Indeed, it is difficult to distinguish adolescents' mobile telephone use from their everyday life practices. The emphasis of social structure can be served as the counter notion of technological determinism, which asserts that the meaning of technology should be grasped within its social structure. The empirical data suggest that adolescents' relationship to mobile telephone is embedded within the context of social relationships, including the family and adolescents' friendship networks. In this respect, adolescents' mobile telephone use is not free-floated from its context of everyday life. Yet, the structure of social relations should not be understood in a unidirectional manner, since the process of the use of technology is the outcome of the interplay of technology, individual and social structure.

The findings show that the operation of family power in controlling adolescents' mobile telephone use and social activities is not a unidirectional one. Rather, adolescents and parents undergo a continuous negotiation process regarding the use of the device. In chapter five, I have illustrated that adolescents need to persuade their parents to buy mobile telephone for them. It reveals that adolescents' purchases of mobile telephones are restrained by the family power structure, since the decision making power of purchasing mobile telephone is on the hands of parents. However, the data also suggest that adolescents are not solely passive agents in the decision making process. Rather, adolescents attempt to negotiate the meaning of mobile telephone with parents by claiming their practical needs of use in order to increase their chance of having the device. On the other hand, even though parents have the power to make decision regarding the purchase of mobile telephone, it does

not mean that parents have the absolute power in constraining adolescents' use of the device. Instead, adolescents are able to use mobile telephone to manage their mobile communication and interpersonal boundaries, such as avoiding parents' supervision. For instance, although adolescents are expected by parents to report their whereabouts, they are able to disobey the rules by using caller identification to delay receiving the calls. Even though adolescents conform to parental rule of reporting, it can be served as a tactic to negotiate more freedom and autonomy in adolescents' social lives and activities. It reveals that adolescents are able to make use of the functional capacities of mobile telephone to exert control over their social activities and relations. In this respect, technological nature of mobile telephone plays an important role, although it is still necessary to understand the technological nature of mobile telephone within their actual context of use. Through the use of mobile telephone, adolescents continuously negotiate the use of mobile telephone and construct their identities – they attempt to show their competence in using mobile telephone in order to gain more freedom and autonomy in managing various social activities and relationships.

Thus, the parent-adolescent relationship is characterized by the continuous process of maintaining a suitable balance between autonomy and control. Mobile telephone is used as a kind of parental control, while it also facilitates adolescents' independence and autonomy. Mobile telephone is a significant part of adolescents' family communication, in which it is a communication device to express care, control, dependence and autonomy. It seems that mobile telephone can have the potential to extend the degree of parental monitoring of adolescents' social activities and relations, but at the same time, mobile telephone can also be used as a means to reduce such control in another way. Thus, adolescents' mobile telephone use is a

complex, ambiguous and contradictory process. It also clearly illustrates the ambiguous nature of mobile telephone.

On the one hand, mobile telephone provides new opportunities to adolescents in managing their interpersonal boundaries and social relations. On the other hand, it illustrates the relational nature of family power structure in the process of family negotiation of the use of mobile telephone. Through continuous negotiations of the use of mobile telephone with parents, adolescents search for their identities. It is through the process of family negotiations that adolescents achieve a sense of control and autonomy.

Moreover, adolescents also actively construct their group identity through the social use of mobile telephone in the peer group context. Although mobile telephone is perceived as an individualized communication device, the empirical data reveal that mobile telephone use is a shared experience among family members and friends. In chapter seven, various collective uses of mobile telephone have been identified. For instance, sharing a handset among peer group members is a means of identification of peer group. Further, the empirical data also suggest that adolescents' use of mobile telephone is constrained by institutional rules and regulations in the school context. Although schools restrict the use of mobile telephone, adolescents are able to make use of the functional capacities of mobile telephone (such as sending SMS messages or using phones in the toilet) to combat with rules and regulations. It is under this context that adolescents' peer group culture is constructed. In sum, mobile telephone is a communication device that facilitates identity construction and negotiation. Adolescents actively use mobile telephone to construct their identities in the family and peer group contexts.

Thus, adolescents' mobile telephone use should be grasped as an interactive

process. The relation between individual, technology and society is a complex one. This study attempts to avoid making any conclusion in determining which factor is more powerful in explaining adolescents' use of mobile telephone. Rather, it aims at illustrating the complex interrelationships between technology, society and individual. The main contribution of this research is to capture the complexity of the process of mobile telephone use. Adolescents' mobile telephone use is understood under the broader social conditions in which they occur, without ignoring the technological nature of mobile telephone and the voluntaristic nature of adolescents.

8.2.1 Evaluation of the Concept of Domestication

This study attempts to transcend the theoretical limitations of previous ICTs research. I have illustrated the ways through which mobile telephone is domesticated into adolescents' social lives and shaped by the complexity of various social interactions. The concept of domestication provides a powerful analytical framework for the understanding of the complex interrelationships of technology, individual and society, which has its wider relevance to further research on ICTs.

However, previous research which used the concept of domestication as a analytical framework to study ICTs has the tendency to overlook the non-family context. As it is suggested in the chapter of literature review, previous research on television and other ICTs has provided useful theoretical and empirical references on the study of ICTs in the family context. We should aware that television is a technology mainly consumed in the home. However, other ICTs, such as mobile telephone, have a significant role outside the family context, which is mainly consumed outside the home (although it is suggested that the purchase of mobile

telephone undergo the process of family negotiation). Thus, previous studies of the domestication of technology usually overlook the use of ICTs outside the home. I argue that the understanding of mobile telephone use should not be limited to a specific familial relation. In this respect, this study contextualizes adolescents' use of mobile telephone by locating it into the peer group setting, which has been ignored in previous family-based studies of ICTs' use.

8.3 Evaluation of Methodology

The methodological contribution of this study is that it adopts a qualitative approach to investigate the actual process of adolescents' mobile telephone use. Adolescents' mobile telephone use is best understood through their social relationships and interactions with others. The focus group context provides a neutral setting of social interactions. Although it is artificially created by the researcher for the study, the interviewees have to take account of other respondents' views in framing their own responses (Hedges 1985: 72). In the group interview setting, the interviewees are stimulated by each other, which increase the diversity of opinion and new ideas (Hedges 1985: 73).

Another strength of the design of this study is that the focus group respondents were from the same peer group. It allows the researcher to observe adolescents' social interaction within the peer group context, rather than just as collections of individuals. Such grouping is essential in understanding adolescents' social use of mobile telephone within the context of peer group culture. Thus, the observation enriches the data. Various interesting phenomenon regarding adolescents' use of mobile telephone (e.g. the collective use of mobile telephone) can only be observed in this way.

Unfortunately, there are several methodological weaknesses in this study. One of the major weaknesses of the present study is that there were great difficulties in formulating “matching cases”, i.e. adolescent respondent and parent respondent belong to the same family. The advantage of matching case is that it can capture the interactive process within the same family regarding the negotiation of mobile telephone use and family relation. However, due to the high rate of refusal by adolescents in inviting their parents to attend interviews, this research can only use rather indirect comparisons to understand the differences of adolescents’ and parents’ perceptions of mobile telephone.

On the other hand, the interpretation of parents’ perception of mobile telephone is based on a relatively small sample. Even though this research mainly focuses on adolescents’ mobile telephone experiences, in which the part of parents’ interviews is only served as a supplementary data source, it is still better to conduct more interviews with parents in order to have a more comprehensive understanding of the constraints faced by adolescents in using mobile telephone.

8.4 Suggestions for Further Research

While the current study approaches adolescents’ use of mobile telephone on a rather micro level, future research should consider the broader cultural context in relation to adolescents’ use of mobile telephone. As Silverstone (1992) and Hall (1989) suggested that cultural system is important in shaping our understanding of technology, it is meaningful to locate the present study into a broader social, cultural and technological context. For instance, adolescents’ use of mobile telephone can be understood in the context of youth consumption culture, and in the context of urban social life.

In addition, the current study shows that adolescents' mobile telephone use is a function of gender and age. It is found that parents tend to concern the safety of daughters more than sons. On the other hand, young adolescents' use of mobile telephone is more likely to be restrained by parents. Thus, the gender and age factor in affecting adolescents' use of mobile telephone is worth considering in further study.

As there are not enough matching cases to grasp the interactive process of mobile telephone use within the same family, it is difficult to thoroughly analysis the implications of mobile telephone on intergenerational relationships and family power structure. Thus, further research should use family as unit of analysis in order to achieve a more comprehensive understanding of adolescents' use of mobile telephone.

Furthermore, further research should consider different kinds of information and communication technologies. This study mainly focuses on adolescents' use of mobile telephone. However, adolescents indeed use different kinds of information and communication technologies to manage their social interactions and activities. As some of the adolescent respondents suggest that they often use ICQ and email to manage social interactions, it is better to understand the ways in which adolescents make use of different ICTs to manage their social interactions and activities. What are the interrelations between different kinds of ICTs? How do adolescents use different information and communication technologies to fulfill their various social needs? The present study is only served as a starting point in understanding adolescents' relations to information and communication technologies. Further researches should investigate adolescents' different usages of various kinds of ICTs, so as to obtain a more comprehensive understanding of the interplay of technology,

individual and society.

Another deficiency of this study is that it is a cross-sectional analysis. A longitudinal study is preferred since the data reveal that the use of mobile telephone may be affected by the age of adolescents. Longitudinal analysis is preferred in order to capture the possible changes in the perception and use of mobile telephone in different ages.

Moreover, further research should consider the possible effects of different types of family composition and physical space allocation at home on adolescents' use of mobile technology. For instance, our data shows that single parent family tends to have more frequent mobile communications. Further, some adolescent respondents suggested that mobile telephone is an important means to manage their phone communication since they don't have private bedroom. Thus, family composition and physical space allocation at home may be served as the possible factors affecting adolescents' perception and use of mobile technology.

It is hoped that this study provides data for further investigations on adolescents' experiences of the technology, and stimulates further research endeavors to rethink the dynamics of the relations between individual, technology and society.

Appendices

Table 1 Wireless Service in Hong Kong

Year	Total Number of Subscribers	Growth Rate (%)
1990	133,912	N/A
1991	189,664	41.6
1992	233,324	23.0
1993	290,843	24.7
1994	431,775	48.5
1995	687,600	59.2
1996	1,210,680	76.1
1997	2,127,935	75.8
1998	2,898,077	36.2
1999	3,989,750	37.7
2000	5,234,370	31.2
2001	5,701,686	8.9
2002	6,218,984	9.1

Note: The total number of subscribers includes all public mobile radiotelephone subscriber units, including analogue, digital, PCS, and pre-paid SIM cards

Source: Office of the Telecommunications Authority, Hong Kong

<http://www.ofta.gov.hk/>

Table 2 Top 10 Countries by Mobile Penetration, 2002

Rating	Country	Mobile Telephone Subscribers Per 100 Inhabitants
1	Taiwan, China	106.45
2	Luxembourg	101.34
3	Israel	95.45
4	Hong Kong, China	92.98
5	Italy	92.65
6	Iceland	90.28
7	Sweden	88.50
8	Czech Republic	84.88
9	Finland	84.50
10	United Kingdom	84.49

Source: International Telecommunication Union (ITU) World Telecommunication Indicators Database

<http://www.itu.int/home/>

Table 3 Mobile Telephone Penetration in Hong Kong

Year	Mobile Telephone Subscribers Per 100 Inhabitants
1999	64.7
2000	81.7
2001	85.9
2002	93.0

Source: International Telecommunication Union (ITU) World Telecommunication Indicators Database

<http://www.itu.int/home/>

Table 4 Demographic Characteristics of Respondents

A) Sex

Sex	Number of Adolescent Respondents
M	13
F	11
Total	24
Sex	Number of Parent Respondents
M	1
F	3
Total	4

B) Age

Age	Number of Respondents (Adolescents)
11	3
12	2
13	0
14	1
15	2
16	5
17	4
18	4
19	2
20	1
Total	24

Table 5 Details of Interviews

(A) Adolescents

Focus Group Interviews	Respondents
1	#1 to #5
2	#6 to #9
3	#10 to #12
4	#13 to #14
5	#15 to #16
6	#18 to #20
7	#23 to #24

Individual In-Depth Interviews	Respondents
1	#17
2	#21
3	#22

(B) Parents

Interviews	Respondents
1	#1 to #2
2	#3
3	#4

Table 6 Profile of Respondents – Adolescents

Code of Respondents	Sex	Age	General Profile
#1	F	17	Secondary school student.
#2	F	16	Secondary school student.
#3	F	16	Secondary school student.
#4	M	16	Secondary school student.
#5	M	17	Secondary school student.
#6	F	17	Secondary school student.
#7	F	15	Secondary school student.
#8	F	16	Secondary school student.
#9	M	16	Secondary school student.
#10	M	18	Secondary school student.
#11	M	18	Secondary school student.
#12	M	18	Secondary school student.
#13	F	14	Secondary school student.
#14	F	15	Secondary school student.
#15	M	12	Secondary school student.
#16	M	12	Secondary school student.
#17	M	19	Secondary school student.
#18	M	19	Secondary school student.
#19	M	17	Secondary school student.
#20	M	18	Having part-time job.
#21	M	20	Having full-time job.
#22	F	11	Primary school student.
#23	F	11	Primary school student.
#24	F	11	Primary school student.

Table 7 Profile of Respondents - Parents

Codes of Respondents	Sex	General Profiles
#1	F	Mother of two daughters (20 and 14 years old, including adolescent respondent #13). Having full-time job.
#2	M	Father of two children (15-year-old daughter and 8-year-old son, including adolescent respondent #14). Having full-time job.
#3	F	Mother of two sons. (Both are 12 years old, including adolescent respondents #15 and #16). Having part-time job.
#4	F	Mother of two children (17-year-old son and 12-year-old daughter). Having full-time job.

Table 8 Details of the Matching Cases

Matching Cases	Parent Respondent(s)	Adolescent Respondent(s)
1	#1	#13
2	#2	#14
3	#3	#15 and #16

Table 9 Summary of Interviews – Adolescents

Code of Respondents	Sex	Age	Mobile Telephone Experiences
#1	F	17	She had 4 years mobile phone experience. She used 200 to 300 minutes per month.
#2	F	16	She used mobile telephone for about 3 years.
#3	F	16	She had 3 years mobile phone experience. She used SIM card, 1000 minutes per half year.
#4	M	16	He used mobile phone for 3 years. He used 600 to 700 minutes per month. He was the only one who bought mobile telephone by himself, although the monthly bill was paid by his parents
#5	M	17	He had one year mobile phone experience. He used 300 minutes per month.
#6	F	17	She used mobile telephone for about 4 to 5 years. She defined herself as heavy user, who used over 1000 minutes per month during summer holidays.
#7	F	15	She used mobile phone for 1 year. She used 200 minutes per month.
#8	F	16	She had 2 years mobile phone experience. She used 600 minutes per month.
#9	M	16	He used mobile telephone for 1 year. He lost his mobile telephone once he got his phone after a few days. He used 300 minutes per month.
#10	M	18	He had 2 years mobile phone experience.
#11	M	18	He used mobile phone for 1 year. He used 600 minutes per month.
#12	M	18	He had 2 years mobile phone experience. He defined himself as light user, who used 100 minutes per month.
#13	F	14	She had 4 years mobile phone experience. She used 600 minutes per month.
#14	F	15	She used mobile telephone for 4 years.
#15	M	12	He used mobile phone for about 2 years. He initially shared the phone with his brother.

#16	M	12	He used mobile phone for about 2 years. He initially shared the phone with his brother.
#17	M	19	He used mobile telephone for about 4 years.
#18	M	19	He used mobile phone for 3 to 4 years. He used less than 100 minutes per month.
#19	M	17	He had 3 years mobile phone experience. He used over 1000 minutes per month.
#20	M	18	He used mobile phone for 5 years.
#21	M	20	He had 3 years mobile telephone experience. He used 300 minutes per month, mainly for working purpose.
#22	F	11	She had no mobile telephone. But she had mobile phone experience by sharing the phone with her mother.
#23	F	11	She had no mobile telephone. But she had mobile phone experience by borrowing the phone from friends and relatives.
#24	F	11	She used over 1000 minutes per month, but now she only used 600 minutes per month because the monthly plan had been reduced by parents.

Summary of Interviews – Adolescents (Continued)

Code of Respondents	Sex	Age	Parental Control of Mobile Telephone Use
#1	F	17	
#2	F	16	
#3	F	16	She noted that mobile telephone symbolically implied the requirement of reporting: “Actually you need to do that once you have the phone...you know that you should make a phone call to home at times.”
#4	M	16	
#5	M	17	Mobile telephone is not the key factor of control, because he needed to get parents’ permissions before going out.
#6	F	17	“It is very troublesome after using mobile telephone. When I have mobile telephone, I would call my mom or she calls me after school everyday. During the period when I have no phone to use, I need to call her at telephone booth after school! But I don’t need to do that at all before having mobile telephone. But I need to do that once I have it. (...) She calls me immediately when I walk to the train station after school. And she says, “Where are you? Are you coming back?” So what can I do? She calls me immediately before I call her! It’s so convenient for her to contact me. And she continues, “What are you doing? When will you come back?” and so on...”
#7	F	15	
#8	F	16	Mobile telephone and constant accessibility: “When I don’t want to go home too soon, and mother calls me to come back, then it’s not good at all. It’s because she can contact me.”

#9	M	16	
#10	M	18	Parental control of mobile telephone use at home: "They would say, 'why you use mobile telephone? There is quota limit! No quota limit for home telephone.'"
#11	M	18	Negative perception of reporting: "I always need to report my whereabouts. It's so annoying."
#12	M	18	Parental control of the choice of monthly plan and phone model: "We must tell them (to change the monthly plan or phone model). They pay for it. If they receive the monthly bill, they don't know what happen. "It won't be their businesses (if the bill is paid by themselves). It will be useless to tell them. It is paid by me, so no need to report."
#13	F	14	Constantly connected is perceived as a disadvantage of using mobile telephone: "My Mon is able to check my whereabouts. She urged me to come back as soon as possible..." She mentioned that father tried to press her mobile telephone secretly: "He pressed my phone book. It's so annoying."
#14	F	15	Family rules of mobile telephone use: "Do not overuse and chat for so long."
#15	M	12	
#16	M	12	"Giving mobile telephone number to friends is not allowed. Mother believes that they should call us by dialing the home telephone."
#17	M	19	
#18	M	19	
#19	M	17	He noted that parents have little control over mobile telephone use: "They seldom call me because I am responsible. They don't need to worry about me. I would call them directly."
#20	M	18	Parental control over their social activities, especially the location: "They need to know my location. They

			would call me if they want to know.”
#21	M	20	Parental control of interpersonal relationships: “They would copy the phone numbers of my friends by glancing my phone book....there is no privacy at all.”
#22	F	11	
#23	F	11	
#24	F	11	

Summary of Interviews – Adolescents (Continued)

Code of Respondents	Sex	Age	Strategies of Controlling Interpersonal Boundary
#1	F	17	She believed that caller ID facilitates the control of interpersonal boundaries: “You know the one who find you. You can cut the phone calls if you don’t want to receive it.”
#2	F	16	
#3	F	16	She noted that mobile telephone facilitates her control of interpersonal communication: “It’s much better. I can choose to make calls on the street. That’s true!”
#4	M	16	Mobile telephone and reserve of privacy: “I like mobile telephone. The conversations would not be heard by others secretly through other phone lines.
#5	M	17	
#6	F	17	She mentioned certain strategies to avoid calls: “If I cut them off, they will probably scold me. But once they call me, I can turn off the ring tone and let it vibrate, and it’s not my business at all!”
#7	F	15	
#8	F	16	
#9	M	16	He believed that mobile telephone facilitates his control of interpersonal boundaries: “If things go wrong, I can cut the phone call.”
#10	M	18	Mobile telephone and the sense of control: “There is no limit in using mobile telephone. We can use it at any time and place especially on the street. No need to stay at home and wait for calls.” Mobile telephone allows him to have more flexible management of social interactions and activities: “It

			(reporting) is not a bad thing. The good side is that I can delay the time of returning home. I tell them the time I will return, so they don't need to wait for me."
#11	M	18	<p>"They seldom call me because I've told them not to phone me. The phone is not for the family. They seldom call me unless there are important things."</p> <p>"... Sometimes they just say something boring, like 'where do you go?', 'have you finished the meal?' etc. I think it's useless to say such things, boring. So I don't allow them to call me."</p> <p>"I call them most of the time, because I don't want them to call me."</p> <p>"Caller ID is a very important function. You can choose to answer or not answer the calls according to your preference."</p>
#12	M	18	He suggested that there are strategies to avoid parents' calls: "Tell them that I've turned on the vibrate mode and put it in the bag."
#13	F	14	
#14	F	15	
#15	M	12	He noted that it is possible to avoid parents' calls by pretending not to be heard. But he have not tried this strategy before.
#16	M	12	
#17	M	19	"I would cut off the calls or divert the calls if it is not suitable to receive the calls."
#18	M	19	
#19	M	17	
#20	M	18	"I would cut off the calls if I feel angry or when I am not enjoy the conversation."
#21	M	20	

#22	F	11	
#23	F	11	
#24	F	11	"I like mobile telephone. Maybe it's because of privacy. Parents can't overhear. They can't hear the conversation when I use mobile telephone." "I would cut their (parents) phone calls and tell them the network is poor."

Table 10 Summary of Interviews - Parents

Codes of Respondents	Sex	Control over Adolescents' Mobile Telephone Use	Perception of Adolescents' Use of Mobile Telephone
#1	F	<p>"The monthly plan should be under family negotiation. If they overuse, I would give the warning to them. If they continue to overuse, I would not allow them to use mobile telephone anymore."</p>	<p>"I have the need. The need is mainly for me to contact her."</p>
#2	M	<p>Reporting as responsibility: "As they go out...it's the safety problem. I would feel more relieved if she calls me. But I think she should...it's her responsibility to do so. She needs to tell parents her location. Tell us that we don't need to worry so much. I think they should do that. "I think they are not responsible (for not calling back). That makes me so afraid of her safety, or she has problems that can't be solved. It's better for her to call me rather than I call her. I know her situation."</p>	<p>"I want to know her whereabouts. We have little time to communicate because of my work nature. When I return home at night, she's slept already. When I wake up, she's gone to school. So I think I need the opportunity to talk to her."</p>
#3	F	<p>Regarding mobile telephone rules: "Not to use mobile phone for chatting for example. And they can't tell the phone number to friends so easily. The phone is for me to contact them, and for them to contact me, etc."</p>	<p>Adolescents' competence is important: "you should know their self-control ability before giving a mobile telephone to them."</p>

		<p>“I urged them to do that. I told them before giving the phone to them. I told them the purpose of buying the phone, that’s for me to contact them when they go out. They can contact me if they need me.”</p>	
#4	F	<p>Reporting is a family responsibility: “Reporting is a responsibility. It is not only applicable to children. It applies to all members. We also need to tell others when we go out.”</p>	<p>“Depends on the age of children. It is necessary to give the phone to them in some circumstances such as camping. It is not so necessary to use mobile telephone in primary school. Secondary school is acceptable.”</p>

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